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Online Learning and the Process of Change: The Experiences of Faculty and Students at a Two-Year College

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ONLINE LEARNING AND THE PROCESS OF CHANGE:

THE EXPERIENCES OF FACULTY AND STUDENTS AT A TWO-YEAR COLLEGE

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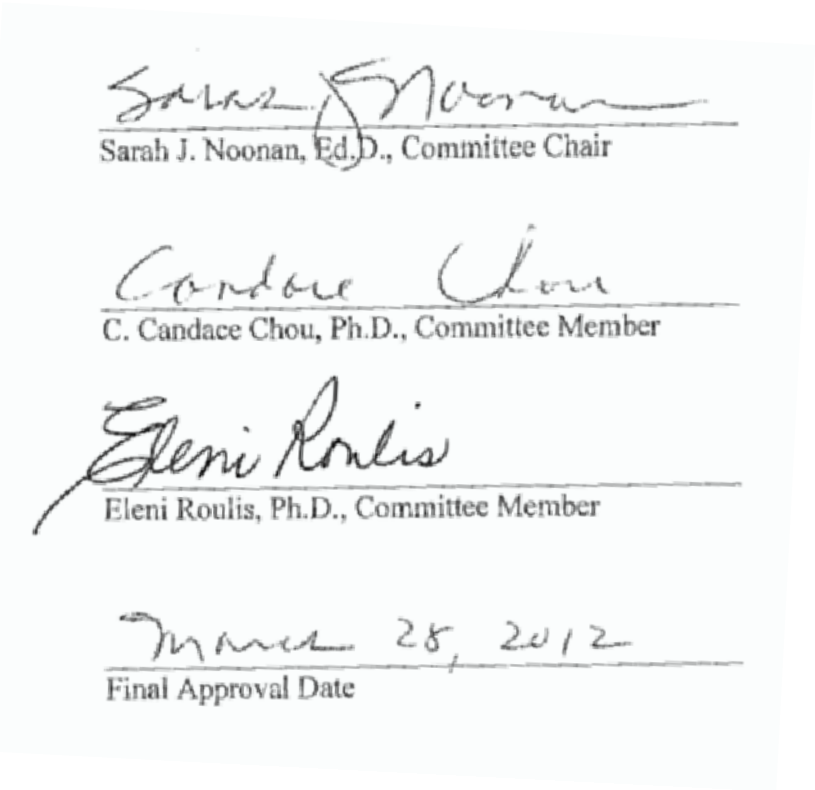
We certify that we have read this dissertation and approved it as adequate in scope and quality. We have found that it is complete and satisfactory in all respects, and that any and all revisions required by the final examining committee have been made.

Dissertation Committee



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ABSTRACT

This phenomenological case study examined the process of change at a rural two-year college migrating from traditional face-to-face instruction to an online learning environment and its affect on faculty and students. Instructors and support staff were concerned about the move to online learning due to the diversity of the student body, including a large proportion of academically disadvantaged students. The institution, however, was pressured to make the change to online learning due to low enrollment and loss of state funding. Instructors were required to change to an online learning environment rapidly with little or no training or support provided by the institution.

Interviews conducted with instructors, students, and tutors revealed the change process was necessary for institutional survival, despite their personal discomfort associated with the transition to online learning. As faculty progressed through the change and began receiving more institutional support and training, they developed pedagogical strategies to increase student learning outcomes in the online classroom. Additionally, due to the large proportion of academically disadvantaged students at the institution, faculty adopted support strategies to engage students and create a sense of community.

Faculty and students appeared to transition successfully to online learning and teaching over the course of this study. Students, including those considered academically disadvantaged, were successful in online learning. Faculty attitudes regarding online learning changed and they grew to appreciate the opportunities it provided for students and the institution as a whole. Theoretical frameworks informing this study included theories related to institutional and individual change, effective online pedagogical practices, and community building.

Keywords: academically disadvantaged, personal change, organizational change, two-year colleges, pedagogy, online learning, online teaching, technology

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CHAPTER ONE

INTRODUCTION

As a past administrator at Rural Midwest Community College (RMCC, pseudonym), a rural community and technical college located in the Midwestern United States, I had many occasions to work with students as they planned their class schedules each semester. At a new student orientation and registration prior to one fall semester, two students visited me for help in the registration process. Although the students were in different programs, as we worked through the required coursework it became apparent approximately two-thirds of their classes were only available in an online format. One of the students was thrilled the majority of her classes were online and tried to find online options for those courses only offered on-ground. The other student, however, was mortified she would have to take any online classes at all. Both she and her mother, who accompanied her, expressed their unhappiness at the limited on-ground course offerings and postponed registering until they had an opportunity to explore programs at a competing technical college. The student returned and enrolled in the online classes, but ultimately withdrew from two of the four online classes on her schedule.

My involvement with an institution migrating some courses and programs from face-to-face learning to an online environment also allowed me to interact with instructors and support staff navigating a major institutional change resulting in substantial individual change involving new pedagogical practices and support for students. Historically, RMCC began as a traditional two-year college providing face-to-face instruction. Eventually they added some interactively televised courses to provide greater access to students on other campuses. Their third iteration of increasing access to courses took the form of online learning.

In the State College and University system (pseudonym), an enrollment based allocation model funded all system institutions. In rural areas where the population continued to decline or age, enrollment figures at RMCC were low when compared to other state institutions. The advent of the

Internet in the early 1990s, and the growth of online education afterward caused RMCC to explore online education as a way to increase enrollment, retain state funding, and stay in business. RMCC comprised several small campuses spread throughout one corner of the state. The affordability of offering one online course to students from all campuses, in addition to those unaffiliated with any RMCC campus, appeared more cost effective than replicating an on-ground course at each campus. Although everyone, including faculty, support staff, and students, wanted RMCC to remain open, the change to an online learning environment was met with resistance and pessimism.

I encountered negative attitudes regarding online education in discussions with student advisors and instructors. One advisor, employed at the college for over 20 years, told others she believed online classes were inferior to on-ground classes and meant only for higher level learners. The advisor thought online classes posed greater difficulty for the "typical" student to complete successfully. On the first day of returning student registration for spring semester, she told her advisees to stay up until registration opened at midnight to be guaranteed a spot in on-ground classes, instead of enrolling in the online course offerings. Many of her students followed her recommendation; however, some of her advisees were unable to register for on-ground sections because of conflicting personal and/or academic schedules. Additionally, many of her new advisees, forced to register at a later date, were unable to enroll in the on-ground sections because those classes were full.

I also witnessed an advisor recommending one general education course over another, ignoring the advisee's interest in the subject and recommending the class because it was offered in a traditional on-ground format instead of the online environment. I felt concerned about how the negative attitudes held by advisors and instructors related to online learning might impact successful student learning in online courses. This concern led me to examine the experiences of students and instructors involved with online learning to determine what factors impacted student success in an online learning environment.

Statement of the Problem

The continued growth of online higher education over the last two decades suggests the phenomenon of online learning will continue to be an important vehicle for teaching and learning (Allen & Seaman, 2011). RMCC, like other colleges and universities, faced increased competition for enrollment and funding, and implemented online learning in order to save institutional jobs and keep campuses open. Today, other institutions traditionally offering only face-to-face instruction are experiencing competition for students who seek the flexibility an online learning environment provides. Many of these institutions may choose online learning courses to augment or replace their current on-ground offerings. Online teaching is fundamentally different than face-to-face instruction, requiring major changes in pedagogical practices (Grosse, 2004; Sugar, Martindale, & Crawley, 2007), such as adopting new technologies and creating opportunities for student-faculty and student-student interaction (Chickering & Gameson, 1987; Graham, Cagiltay, Lim, Craner, & Duffy, 2001; Sugar et al., 2007; Swan, Shea, Fredericksen, Pickett, Alexandra, & Pelz, 2000). The process used to implement this change may impact employee retention and student learning outcomes due to instructor feelings of inadequacy in adopting new pedagogical practices (Bolman & Deal, 2003) and student learning capabilities in an online environment (Bell, 2007; Mannan, 2003; Menager-Beeley, 2001; Osborn, 2001).

The continued growth of online learning also implies the potential exists for a more diverse student enrollment in online courses. A review of the scholarly literature indicated not all students may be good candidates for online learning. For example, Rose and Blomeyer (2007) found academically gifted students were more successful in online learning than those considered academically disadvantaged. Some students with characteristics such as poor self-discipline (Bell, 2007) or low literacy skills (Mannan, 2003) do poorly in online education. Many RMCC instructors believed the move to online education would preclude successful learning outcomes for academically disadvantaged

students who comprised a high percentage of the student body. In this study I explored how one institution implemented the migration of some courses and programs from face-to-face classes to the online environment and the effect of the change on faculty and students. I also explored faculty adoption of new technologies and pedagogical practices necessary in an online environment. Finally, I explored the student characteristics and practices affecting student learning in online courses.

Significance of the Problem

Online education serves one of the fastest growing mediums of educational delivery in the United States (Rose & Blomeyer, 2007). The topic of online education is important to the field of higher education and to students desiring access to education because retention of students and successful completion of courses are primary areas of concern for both students and institutions. A 2007 article in RMCC's newsletter reported, since 1997, the institution had gone from 0% full-year equivalent (FYE) to 28% FYE enrolled in online courses. The State College and University raw data from 2007 showed in four years the number of online sections offered at RMCC increased by 78%, and the FYE in those courses increased by 220%. The total State College and University system mirrored this trend by showing a 259% increase in online sections offered and an FYE increase of 159% in online courses. Nationally, online learners increased from 1,602, 970 in 2002, to 2, 329,783 in 2004 (Brown, 2007). Allen and Seaman (2007) reported two-year institutions showed the highest growth in online learning. Additionally, in 2006 almost 25% of all United States college students were taking at least one online course (Allen & Seaman, 2007). The growing trend for virtual educational delivery has a major impact on today's college students.

The increase in online education indicates many institutions are supplementing or replacing traditional face-to-face classes with online courses (Allen & Seamen, 2011). This migration process involves significant changes in the way courses are constructed (Grosse, 2004), a greater time commitment from instructors (Choi & Park, 2006), and modified support strategies for dealing with at-

risk students (Osborn, 2011). By studying how one institution implemented a change from face-to-face instruction to online instruction, I hope to provide insight into the process of individual and organizational change. These insights may assist other institutions, exploring the addition of online learning to their course offerings, in implementing change in a manner most beneficial to instructors and students. Additionally, by examining faculty experiences converting face-to-face courses to online learning, and adopting new technologies and pedagogy, other instructors making this transition may gain insight into successful strategies to reduce the need for learning through a trial and error method and increase the use of effective methods.

Another important issue surrounding online education involves the experience of academically disadvantaged students in an online environment. Two-year colleges often serve a large number of academically disadvantaged students. RMCC's registrar identified 53.8% of students enrolled in 2007 as academically disadvantaged based on their skills assessment scores or on their grade point average (GPA).

This is a significant topic for today's educators because equal access to appropriate education for all students is important. I observed a declining opportunity for students to enroll in face-to-face education in rural areas. In two-year, rural, higher education institutions, where many of the students are academically disadvantaged, traditional face-to-face education is becoming less available. If academically disadvantaged students do not find success in online education, the marginalization of this population in their pursuit of further education would likely grow.

By exploring the experiences of students enrolled in an online course for the first time and faculty perceptions of online student characteristics, I hoped to shed insight into the make-up of a successful online student. These insights may assist instructors' development of support strategies for online students with diverse learning styles and study habits. They may also help define the ability of the

online learning platform's successful implementation in various courses and with academically disadvantaged students.

Purpose of the Study

The original focus of my study was to explore the experiences of academically disadvantaged students in a rural community and technical college placed, for a variety of reasons, into an online learning environment. Academically disadvantaged students, for the purpose of this study, are defined as those who have a grade point average (GPA) below a 2.0 on their college or high school transcript, and/or have indicated the need for placement in a developmental class on the basis of a skills assessment test score.

My goal was to better understand the experiences of academically disadvantaged students placed into an online learning environment with the hope of better serving them in the future through the educational process, student advising, and other support methods. The higher education community appeared to have inconsistent ideas about the appropriateness of online education for academically disadvantaged students. As an administrator in an institution continuing to grow in its online course offerings, I was caught between the fiscal needs of the institution, the conflicting negative and positive attitudes concerning online learning heard from students, faculty, and staff, and my belief and commitment to providing higher education to all populations including those in rural areas.

Research Question

I investigated the process of change at a rural two-year college with regard to the transition of some courses and programs from a traditional face-to-face learning environment to online learning. My questions were informed by the concerns faculty expressed with regard to institutional change, student responses to online learning (particularly with regard to the success of academically disadvantaged students), and the strategies employed by instructors and students to attain success in an online learning environment. The following research questions framing my study included:

- How did traditionally-trained instructors, working within a single two-year college, experience change as a result of the transition from face-to-face or "on-ground" classrooms to an online learning environment?
- What pedagogical practices proved effective in helping students learn successfully in an online environment?
- How do academically disadvantaged students experience online learning during their first attempt in an online course? How did their instructors support them?

Overview of the Dissertation

In this chapter, I provided the context and background information regarding this study, first describing my personal interest and later explaining the problem and its significance to the field of higher education. I then described the purpose of the study and the research questions adopted for the study of online learning.

In Chapter Two, I presented an overview of the scholarly literature related to the history of distance learning and the origin of online education as a subset of distance learning. I also presented an overview of the scholarly literature pertaining to instructor adoption of online learning technologies, changes in pedagogy, and elements leading to student success in an online learning environment. Lastly, I presented the theoretical frameworks used to inform this study, including theories related to institutional and individual change, effective online pedagogical practices, and community building.

In Chapter Three, I described the reasons for my adoption of qualitative research and the combined approach of phenomenology and case study methods. I explain how I gathered and analyzed data, provided background regarding the setting for this study, and identified my methods for recruiting participants. I also addressed ethical considerations, limitations, and researcher bias.

In Chapters Four and Five, I reported data findings and analysis. I focused on the institutional change process and how it affected instructors and students. I went on to explore the adaptation process

using the insight of instructors, students, and tutors. My analysis used theories explaining change, pedagogy, and student learning.

In Chapter Six, I summarized the research and described its implications in the field of higher education. These implications included the process of change, online pedagogical practices, and student characteristics leading to successful learning outcomes. I concluded the chapter with my recommendations for future research.

The purpose of my study was to explore the experiences of students, including those considered academically disadvantaged, enrolled in an online course for the first time. I also explore the experiences of instructors as they migrated from traditional face-to-face learning to an online learning environment. Understanding their experiences has significance for institutions exploring the implementation of major change, as well as instructors and students involved in online learning.

Definition of Terms

Academically disadvantaged: A student who has a grade point average (GPA) below a 2.0 on his/her college or high school transcript, or has placed in a developmental class in math, reading, or writing based on a skills assessment test score.

Distance education: Study in which the instructor and the student are not physically in the same learning space. It may take many forms including, but not limited to, correspondence, interactive television, online, and audio conferencing.

Full-year equivalent (FYE): An enrollment figure used for budgeting purposes derived by dividing total student credit hours by the number of hours constituting a full load of classes.

Learning disabled: Having difficulty with "reading decoding, reading comprehension, written expression, mathematical calculations or reasoning, and oral language, or a combination of these" (Shapiro & Rich, 1999, p. 15).

Learning management system (LMS): A software system designed to create a web-based instructional classroom.

Liberal arts: A course of instruction including the arts, humanities, natural sciences, and humanities ("Liberal Arts," 2005).

Likert scale: An intensity scale using a range of points to measure items such as agreement/disagreement and like/dislike.

Locus of control: "Belief in one's control over academic and other outcomes" (Roblyer & Marshall, 2002, p. 242).

On-ground education: Classes taking place in a building through face-to-face interaction between teacher and student.

Online education: Classes taking place remotely via an Internet connection.

Pedagogy: The "strategies, techniques, and approaches used to facilitate learning" ("Pedagogy/critical pedagogy," 2007).

Phenomenology: A qualitative research method seeking to understand the shared experience of a phenomenon.

Technical program: A program outside the liberal arts curriculum leading to training for a specific vocation or trade.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction to the Literature

My involvement in higher education led me to conduct this study. I served at an institution engaged in change, migrating some courses and programs from face-to-face learning to an online environment. I wondered how the organization would implement and support such a change. My interactions with a diverse student population, many classified as academically disadvantaged, prompted me to examine the reasons for the shift to online learning and the possible pedagogical consequences for different types of students. I initially wondered if it was possible for any type of student, including those who are academically disadvantaged, to find success in an online learning environment. As I delved further into my study, I also decided to investigate the process and success of traditionally educated instructors who made the transition from face-to-face learning to the online classroom. This included identifying the pedagogical practices adopted to address the needs of students, including academically disadvantaged students, in online education.

To inform my study, I reviewed scholarly literature concerning three broad areas related to online education: (1) the history of distance learning and the advent of online learning in higher education, (2) experiences related to instructor adoption of new technology and changes in pedagogy in the online environment, and (3) student characteristics and practices affecting student learning in an online environment. The chapter concludes with an introduction of theories related to individual and organizational change, and studies of effective "online" and "on-ground" pedagogy.

Distance Education Moves Online

The phenomenon of online learning is the most recent medium in the provision of distance education; however, the field of distance education has a long history, which may enhance our

understanding of online learning applications in higher education (Daniel, 2000). Toward the end of the 19th century correspondence education began to grow as safe travel, the printing press, and the postal service became a reality in the Roman Empire. Later, the 20th century brought newer technologies including radio, telephone, television, computers and the Internet (Daniel, 2000).

During the baby boom of the 1950s the United States faced a shortage of K-12 teachers and school facilities (Johnson, 2003). Instructional television was adopted to supplement regular face-to-face instruction. The use of instructional television increased throughout the 1950s; however, when school enrollment began to decline in the 1970s the need for instructional television decreased as did production of educational programming (Johnson, 2003).

In United States higher education, the 1920s saw college radio stations used for the broadcast of extension programs. The move from radio to television broadcasts of courses occurred in the 1960s with many institutions using televised classes to "provide access for more individuals" (Johnson, 2003, p. 6). The use of television for instruction continued to increase throughout the 1960s and 1970s, and reached a major turning point in 1981 with Walter Annenberg's gift of $150 million to be used for further development of televised higher education courses (Johnson, 2003).

First Online Courses

One of the first totally online courses was offered in 1982 as a non-credit executive training program by Western Behavioral Sciences Institute (Harasim, 2000). Because these were some of the very first courses taught totally online, instructors had no online teaching or learning experience. The online instructors moved blindly through the process, and created lessons using a trial and error approach. Instructors quickly learned moving traditional face-to-face elements like lectures and discussions to an online environment was not as simple as transferring what was done in the traditional class to an online platform. They experienced student disengagement and felt their first experiences with online teaching went poorly (Feenberg as cited in Harasim, 2000). The early faculty experiences with

online teaching motivated instructors to explore different ways to deliver course materials online and to garner deeper student engagement (Harasim, 2000).

The invention of the World Wide Web in 1992 gradually shifted the distance education paradigm from televised classes to online education (Harasim, 2000). Online learning in the United States has grown tremendously across the K–16 educational spectrum over the past thirteen years (Kim-Rupnow, Dowrick, & Burke, 2001; Johnson, 2003; Phipps & Merisotis, 1999; Rose & Blomeyer, 2007). Figures indicate the online education phenomenon is not only here to stay, but will continue to grow. Allen and Seaman (2010) reported colleges had the highest annual increase in online enrollment with one million more students enrolled in online learning, bringing the total online student population to 5.6 million in 2009. Possibly the unexpected increase in online enrollment was due to the poor economy coupled with the increase of institutions offering online courses (Kaya, 2010). The growth of online education continued in 2010 with 6.1 million students enrolled in at least one online course. The 10% growth in online enrollment far exceeded the 1% overall growth in higher education (Allen & Seaman, 2011). The growth in online enrollment as a percent of total enrollment between 2002 (9.6%) and 2010 (31.3%) suggests the phenomenon of online education continues to be an important medium for teaching and learning.

Institutional Motivation for Online Courses

While institutions choose to offer online courses for a variety of reasons, one is the increased access to education the online medium affords (Allen & Seamen, 2011). Adults may want to move from the skills they acquired at an earlier time and learn new skills. These working adults, many with families, want the ability to learn "what they want, when they want, and where they want" (Daniel, 2000, "The Changing Circumstances of Higher Education," para. 4). Online education provides access to students who have no means of transportation, or students whose schedule does not allow participation during a rigid class meeting time. Online education also provides access to students who

are interested in subject matter not offered at an institution within commuting distance. Many institutions implement online education because of the flexibility it provides students, faculty, and the institution (Allen & Seamen, 2011). Online education is an equalizer, giving educational access to those who otherwise might be deprived of learning opportunities.

Additionally, institutions faced with stagnant or declining enrollment and decreasing financial support looked to online learning as a means to boost revenue and remain in business (Allen & Seamen, 2011; Newman & Couturier, 2002). The geographical limitations of traditional face-to-face education disappeared and competition increased between colleges and universities of all types with the advent of the World Wide Web (Newman & Couturier, 2002). In 2011, 65% of chief academic officers reported online courses were a critical element in their institution's long-term strategy (Allen & Seamen, 2011). The demand for the flexibility online learning afforded coupled with the increased competition between institutions of higher education predicted the growth of online learning.

Instructor Experiences in Online Teaching

The online learning environment requires instructors to make adjustments to teaching practices (Grosse, 2004). Moving from a face-to-face classroom to an online environment can be difficult for instructors who have taught in a traditional classroom for many years. Although instructors may be experts in their particular field, moving to an online environment requires development of new technological skills and pedagogical practices. Moving from face-to-face teaching to online teaching requires faculty members to make a "major transition" in their instructional approach (Sugar et al., 2007, p.367).

Adoption of New Technology

One study of a novice online instructor found the adoption of both synchronous and asynchronous formats combined in one course (Choi & Park, 2006). The course met one hour per week via synchronous online chat and streamed audio, enabling the instructor to talk to the students and

facilitate discussions. New technologies like chat rooms and streaming audio were used by the instructor in place of the tradition face-to-face discussion in on-ground courses (Choi & Park, 2006). Chat discussion rooms require instructors to multi-task in a way unlike the traditional face-to-face classroom. This may be difficult for instructors who must learn to read, synthesize, and respond to several student comments all populating the chat room at one time.

Understanding and using a LMS can pose a challenge to novice online instructors. One instructor found simply learning the LMS system was a "challenge and burden" requiring her investment of additional hours to develop an effective course (Choi & Park, 2006, p. 320). She learned how to navigate the system using a tutorial and asking questions of other staff members; however, she did poorly with the technology during the first two weeks of the course. It was not until the third week of the course she successfully navigated the online chat room losing valuable teaching and learning opportunities during the opening weeks of the course (Choi & Park, 2006).

Faculty from the University of West Florida participated in a six week training session on the use of one LMS, WebCT (White & Myers, 2001). Even after six weeks of training, faculty found they spent much more time learning how to use WebCT effectively, converting and uploading face-to-face data to the online environment, and "provide student training to use the website" (White & Myers, 2001, p. 98). These studies indicated the adoption of new technologies can be a challenging and time-consuming experience for instructors.

Pedagogical Challenges and Opportunities

Two key elements related to student success in online learning involve student-faculty interaction, and student-student interaction (Chickering & Gamson, 1987; Grahamet al., 2001; Sugar et al., 2007; Swan et al., 2000). Choi and Park's (2006) case study of an experienced instructor teaching an online course for the first time revealed several strategies the instructor needed to adopt to effectively interact with students and realize positive learning outcomes. To facilitate engagement in a synchronous

online environment the instructor entered the chat space prior to the allotted time, and using streaming audio greeted each student by name prior to beginning the formal discussion.

Suttle (2010) found students who participated in online discussion boards or chat groups were significantly more engaged in an online course than those who did not. The instructor used online chat and streaming media to engage students and convey a sense of caring for each individual (Choi & Park, 2006). Although synchronous online discussions may facilitate better student engagement, the typical online learner chooses the online environment because of the flexibility it provides (Sugar et al., 2007). Restricting student access to a synchronous environment may limit the types of students who enroll in a course mandating a synchronous meeting time.

Some instructors found the asynchronous online environment allowed them to get to know their students more personally though email communication (Grosse, 2004). Instructors who took the time to thoroughly respond to student email in a timely manner would fulfill the key pedagogical element of faculty-student interaction.

Sugar et al. (2007) studied the typical activities of a senior professor teaching a face-to-face course in science education to determine if the same activities could be replicated in an online format of the same course. They surmised some face-to-face course activities, such as provision of course documents and information and student-instructor or student-student interactions could easily be replicated using online tools like HTML pages, social bookmarking sites, and discussion boards. Other common activities such as course demonstrations may be more difficult or costly to reproduce online. Sugar et al. recognized simulated modules might replace course demonstrations however contended the cost and effort needed to create such modules was high.

Even with sophisticated technology and robust faculty development, Sugar et al. (2007) found certain face-to-face practices very difficult or impossible to replicate in an online environment. The linear fashion of online communication made spontaneous conversation and the “teachable moments,”

often occurring in traditional instruction, impossible in the online environment. Additionally, the non-verbal cues often present in a traditional classroom cannot be replicated in an online course.

Student apathy may be an obstacle in an online course (Choi & Park, 2006). Even during synchronous sessions, distractions from a "home" environment may cause students to become disengaged, or superficially engaged, in the online discussion. To encourage active participation, one instructor changed her approach to online discussions by providing "more realistic case studies" (Choi & Park, 2006, p.319). She found differences in the characteristics of her online students compared to her on-ground students. Her on-ground students did not need the additional stimuli more realistic studies provided to the online students. The instructor found by providing more stimulating case studies to her online students, participation in online discussions significantly increased and student apathy lessened (Choi & Park, 2006).

Reliable assessment may be more difficult in an online learning environment (Choi & Park, 2006). Instructors must take into account the access students have to course materials, textbooks, and other resources outside of a traditional classroom. Choi & Park (2006) found different means of assessment need to be created to measure and facilitate student learning; instructors used open book/open note exams, portfolios, projects, and problem-solving activities.

Conversely, several positive aspects of the online learning environment potentially improve the learning outcomes of a face-to-face course (Grosse, 2004; Sugar et al., 2007). Tools such as blogs and wikis allow students to learn collaboratively (Harasim, 2012; Ko & Rossen, 2010; Stavredes, 2011). Documents created in an online course can be archived and accessed long after the course has ended (Sugar et al., 2007). Required participation in online discussion forums assures all students have a voice (Sugar et al., 2007). Additionally, the online discussion forum allows time for critical reflection prior to posting comments making online discussions richer in content (Grosse, 2004).

Student Success in Online Learning

The online learning experience fundamentally differs from the traditional face-to-face classroom experience (Ko & Rossen, 2010). Learning activities common in a face-to-face class such as taking lecture notes, occasionally answering a question, or participating in oral discussions occur differently in an online course. The learning and study habits students may have developed through years of traditional face-to-face learning, must be adjusted to fit the online learning environment (Ko & Rossen, 2010).

Disagreement exists regarding the effectiveness of online courses and their suitability to all learning styles. Funk (2005) asserted academically disadvantaged students are particularly vulnerable to failure, especially when enrolled for the first time in an online course. These students may share common characteristics such as low self-esteem (Osborn, 2001; Wang & Newlinas as cited in Roblyer & Marshall, 2002), poor study habits (Bell, 2007; Hardy & Boaz as cited in Roblyer & Marshall, 2002; Williams & Hellman, 2004), or a dependent learning style (Bullen, 1998; Jonassen, Previsch, Christy, & Stavrulaki, 1999; Laffey, Tupper, Musser, & Wedman, 1998; Mannan, 2003; Naidu, 1997; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002). However, learning style differences can be accommodated in online courses leading to successful student outcomes (Aragon, Johnson, & Shaik, 2001).

The differences in the online learning experience and the need to adjust to a new learning environment presents challenges to instructors and students. The following sections review the scholarly literature surrounding diverse student populations in online learning and the factors potentially influencing their success or failure.

Completion Rates in Online Courses

While the growth of online learning appears to “level the playing field” for all desiring access to education, some troubling trends reported in the distance learning literature require consideration. Much

of the distance education literature reported attrition rates in distance education courses were much higher than attrition rates in face-to-face education; sometimes even double the rate (Carr, 2000; Holmberg as cited in Osborn, 2001; Mendrinos as cited in Menager-Beeley, 2001; NCES as cited in Menager-Beeley, 2001; Phipps & Merisotis, 1999; Primary Research as cited in Menager-Beeley, 2001; Roblyer, 2006; Roblyer & Elbaum, 2000; Scanlon as cited in Dille & Mezack, 1991; Stumpf, McCrimon, & Davis, 2005). In fact, a review of the distance education research conducted by Phipps and Merisotis (1999) criticized articles reporting the learning outcomes for students in distance education were similar and even favorable to those in on-ground classes. Phipps and Merisotis claimed this research was skewed because it omitted course dropouts and only focused on those actually finishing the course.

Several studies examined differences between the online learning environment and the on-ground classroom potentially contributing to student satisfaction and success. Johnson (2003) reported elements such as instructor-student facilitation of discussions, instructor-student control of content, course evolution, and communication tools facilitating instructor-student interaction. While the opportunity for access may be increased with the advent of online learning, the chances for student success in online courses may not be as positive. Regardless of student capabilities, students who function well in a traditional face-to-face classroom, may not be as successful in an online learning environment due to a variety of factors including previous academic success (Bell, 2007; Mannan, 2003; Menager-Beeley, 2001; Osborn, 2001), literacy skills (Mannan, 2003; Menager-Beeley, 2001; Phipps & Merisotis, 1999), self-discipline and self-direction (Bell, 2007; Hardy & Boaz as cited in Roblyer & Marshall, 2002; Williams & Hellman, 2004). Additionally, Roblyer (2006) reported the possibility of failure was even greater for an academically disadvantaged student.

Some academics believe students with a greater chance of failure in the online classroom should be weeded out prior to registration (Carr, 2000; Mannan, 2003). Others believe all students should have

the opportunity to take classes online (Osborn, 2001). Mannan (2003) found some students are more adept at online learning than others and should be advised as to whether or not they should enroll in an online course. On the other hand, while Osborn (2011) believed a tool to identify at-risk students prior to enrollment was valuable, emphasizing its purpose was not to eliminate the at-risk student from online learning but rather to provide the correct support to the student so he/she could be successful. Is it possible to provide greater access to education and still ensure the same opportunities for student success in an online environment?

Student Characteristics Contributing to Success in Online Learning

Differences between the nature and experiences of learning in an online environment as compared to an on-ground classroom may result in different rates of student success based on their characteristics as learners. Previous academic success or grade point average (GPA), proved an important predictor of success in four reviewed studies (Bell, 2007; Mannan, 2003; Menager-Beeley, 2001; Osborn, 2001). All four of the studies documented GPA was an important predictor; however, GPA as a single factor did not prove sufficient for predicting academic success in online learning. A discussion of two studies relating other factors in addition to GPA follows.

Menager-Beeley's (2001) study focused on GPA specifically in English classes and not on the general GPA of all classes taken. The study, conducted at a California community college observed students in both a political science and general psychology class using a Likert scale survey instrument. The study's findings clearly showed students with a GPA lower than 3.0 in English were much more likely to withdraw from the online classes than were students with a higher English GPA. This finding is consistent with the additional need for good writing skills in order to communicate in an online classroom environment where verbal skills may not be relevant. A related finding indicated students with high literacy levels were also more likely to be successful in online learning (Phipps & Merisotis, 1999).

Similarly, Mannan (2003) conducted interviews of community college students. The importance of being able to read in the online environment was brought to the forefront by one student who commented:

> I've done a lot more reading for this class than I have for classroom classes because [in a classroom] I'd get a lecture and the instructor would discuss the main points of the topic and then assign a reading. With an Internet class, you don't have a lecture and discussion; so you have to read. (p. 66)

Again, the need for a command of English, both in reading and writing was deemed important when communicating in an online environment.

Another key characteristic related to success in an online environment was the students' need to be much more self-disciplined and self-directed than their counterparts in the traditional classroom (Bell, 2007; Hardy & Boaz as cited in Roblyer & Marshall, 2002). Williams and Hellman (2004) found the online learning environment gave students much greater flexibility in their choices, such as where and when to study, requiring them to monitor their own progress. Two studies reported similar attributes leading to online success such as, controlling one's effort and attention (Mannan, 2003), taking responsibility for course participation/assignment completion (Roblyer & Marshall, 2002), and managing one's time and place of study (Roblyer & Marshall, 2002).

Prior computer technology experience or the belief one can be successful using a computer was reported in several studies as a major contributor to success in an online course (Al-Khaldi & Al-Jabri, 1998; Bell, 2007; Hill & Hannafin, 1997; Kim-Rupnow et al., 2001; Joo, Bong, & Choi as cited in Williams & Hellman, 2004; Limbach, Weges, & Valcke, 1997; Mannan, 2003; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002; Rude as cited in Cook & Grant-Davie, 2005; "Understand Online," 2001; Wisehart & Blease, 1999). The student's prior ability to use the technology allowed the student to fully concentrate on being successful in the course instead of having the additional burden of

learning how to use the technology (Mannan, 2003). The technology aspect of online learning sets it apart from other forms of distance education and requires some level of proficiency in using computers, software, and the Internet.

Students with an internal locus of control, the belief they control the outcome of their own success or failure, tended to be more successful in online education than those with an external locus of control (Osborn, 2001; Wang & Newlinas as cited in Roblyer & Marshall, 2002). This attribute encompassed many of the other traits mentioned as contributing to online success. If students believed they were responsible for their success, they were more likely to display behaviors, such as setting aside study time in a quiet area, taking responsibility for completing assignments, and asking questions to be certain they are on the right track. Students with an internal locus of control were goal oriented and internally motivated as they worked to meet their goals (Bell, 2007; Osborn 2001; Roblyer & Marshall, 2002; "Understand Online," 2001). In addition, successful students expected or were confident their efforts in the course would lead to a positive outcome (Bell, 2007; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002).

Several studies reported students who experienced success in distance and/or online learning worked well independently; they did not need outside support or traditional classroom type discussion in the learning environment (Bullen, 1998; Jonassen et al., 1999; Laffey et al., 1998; Mannan, 2003; Naidu, 1997; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002). Care should be taken not to confuse the idea of not seeking outside support with the ability to take responsibility for one's own success by asking questions. Seeking help, as discussed previously, is a behavior important to success in online learning.

Other characteristics mentioned as contributing to success in online and/or distance learning included:

- Persistence when approaching something new (Osborn, 2001; Phipps & Merisotis, 1999)

- Rating the consequences of failing the class as important (Menager-Beeley, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002)
- Willingness to take a risk (Roblyer & Marshall, 2002)
- Having some prior knowledge of the course subject (Coussement as cited in Roblyer & Marshall, 2002; Hill & Hannafin, 1997; Limbach et al., 1997; Osborn, 2001; Wishart & Blease, 1999)

These characteristics appear to address skills needed for success in many learning endeavors. Risk taking and persistence might be categorized with an internal locus of control. Those students who believe they can succeed and are willing to take a risk with a new type of learning may have an advantage over those who feel unsure of themselves (Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002). A student with a large stake in passing a course may take the extra steps necessary to make certain they succeed. Finally, having prior knowledge of the course subject may give a student some advantage compared to a student who knows nothing about a subject.

The studies did not isolate or rank the characteristics for success in online learning; however, several characteristics contributed to the success of online or distance education students. The overall picture of a successful online student appeared to be a student with a history of good grades (Bell, 2007; Mannan, 2003; Menager-Beeley, 2001; Osborn, 2001), an independent learner (Bullen, 1998; Jonassen et al., 1999; Laffey et al., 1998; Mannan, 2003; Naidu, 1997; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002), self-confident in their abilities to learn in an online environment (Bell, 2007; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002), and experienced with computer technology (Al-Khaldi & Al-Jabri, 1998; Bell, 2007; Hill & Hannafin, 1997; Kim-Rupnow et al., 2001; Joo, Bong, & Choi as cited in Williams & Hellman, 2004; Limbach et al., 1997; Mannan, 2003; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002; Rude as cited in Cook & Grant-Davie, 2005; "Understand Online," 2001; Wisehart & Blease, 1999).

External Factors Contributing to Success in Online Learning

In addition to the characteristics a student brings to the learning environment, several external factors may contribute to a student's success or failure with online learning. Student support services of various types were felt to be of great importance in distance education (Roblyer & Marshall, 2002; Kim-Rupnow et al., 2001). Roblyer and Marshall (2002) developed an Educational Success Prediction Instrument, a 70 item Likert scale survey, for online high school students based on constructs identified in the literature as contributing to online student success. Their purpose for developing the instrument was to identify students who may not be successful in an online course in order to provide additional support for these students there-by increasing their chances for successful completion of the online courses.

As Roblyer and Marshall (2002) studied the effectiveness of the instrument with a sample of 135 students from around the country, they found by pre-identifying students who might be at-risk for failure in online classes, time was allowed for student counseling prior to taking an online course. They suggested online students meet with counselors/advisors to discuss the additional demands online courses present, and develop a success strategy to help them complete the course. The idea a possible pre-course introduction could be helpful was mentioned as one such strategy. The study also suggested distance students have access to assistance in a computer lab and the opportunity for some face-to-face sessions to supplement the online course. Lastly, Roblyer and Marshall pointed out in all of the studies they reviewed for their own work, the importance of timely technical support was a critical factor for both the instructor and for the student.

Kim-Rupnow et al. (2001) reviewed literature dealing specifically with disability students in post-secondary distance education and reported positive results when external support was provided. They noted even disability students were provided with better access to education and had successful experiences based on the use of various support services. These services included, "preparatory courses

to develop study skills, remedial tutoring, taped materials, identification of special needs in computer use, arrangements for home examinations, assessment of individual functional requirements, and financial support" (Kim-Rupnow et al., p. 32). Again, it is important to note there are differences between disability students who may have difficulty in reading, writing, math, and/or communication (Shapiro & Rich, 1999) and those considered academically disadvantaged; defined by the State College and Universities as a student having a GPA below 2.0 or scoring poorly on a placement test requiring their completion of one or more developmental courses. These differences may have a significant impact on how support services affect the success of students in online courses.

Differences in instructor set-up of the online environment and instructor expectations for submission of assignments/tests were problems for some online students (Ko & Rossen, 2010; Mannan, 2003). While most institutions use one LMS, such as Blackboard or Desire2Learn for all online classes, the way the instructor sets-up the site, how they administer tests through the site, how a student must submit assignments, assigned readings, and engage in online chats may all look different from course to course. While these differences occurred frequently in a traditional face-to face class and did not appear to influence performance, they seemed to contribute to student anxiety and possibly even success or failure in the online environment (Ko & Rossen, 2010; Mannan, 2003).

"Expectancy for learning", described as the anticipated outcome the student has of their learning experience, was another important factor in student online success (Bell, 2007, p. 528). The idea of expectancy for learning was discussed in a variety of ways. While one may argue this is an internal characteristic related to an internal locus of control, the literature suggested it may also be affected by external factors. Expectancy for learning manifested itself in a student displaying a "can do" attitude in his/her approach to an online class. Additionally, students who were encouraged to enroll in an online course were more likely to be successful (Osborn, 2001; Roblyer & Marshall, 2002). This finding suggests a concern, when students receive counseling against enrolling in an online course, the

experience may affect the student's expectancy for learning, particularly if online learning is the only option open to them. Bell (2007) argued it was the educator's responsibility to provide students with a strong expectancy for learning to ensure success.

Another major external factor contributing heavily to a student's success or failure was outside access to technology (*Institute for Higher Education Policy*, 1999). This suggests students living in a rural area during the early years of online education may be at a disadvantage if Internet access was through a dial-up Internet connection or students lacked access to a computer at home. Roblyer and Marshall (2002) found a student must have "better than average" access to technology to access online courses and be successful in course completion. Students must also have the means to purchase and maintain the necessary computer hardware and software (Phipps & Merisotis, 1999). The possibility of a "digital divide" occurring, and contributing to the success or failure of academically disadvantaged students seems possible based on the above findings.

Lastly, students enrolled in an online course, either because it was more convenient or they had no other option, were not as successful as those who took the course to satisfy their own curiosity or because they had an interest in learning in an online environment (Bell, 2007). As online learning grows, access to on-ground learning options may become less available to students who prefer the face-to-face environment, making the above findings more important.

Implications for the Study

While I found research on distance education in general and studies with regard to online learning specifically, I found no specific research relating to academically disadvantaged students' experiences in online classrooms in higher education either at four-year or two-year institutions. In their 1999 review of the distance learning research, Phipps and Merisotis reported the following major gaps in the distance education literature:

- There was no account taken for individual differences among students. The research focused only on groups as a whole.
- Different learning styles and their relationship to different types of technology was not studied.
- There was no explanation of why attrition was higher in distance education than it was in the traditional on-ground classroom.
- There was little research either explaining or predicting student outcomes related to online learning.

A further gap concerned the major focus in distance education research on four-year institutions (Osborn, 2001; Phipps & Merisotis, 1999). I believed this gap was especially critical due to the number of two-year college students enrolling without the skills necessary for college-level learning. For example, the National Center for Education Statistics (2003) reported academically disadvantaged freshman at two-year public institutions in fall 2000 at 42% compared to 20% at four-year public institutions. Bailey, Jenkins, and Leinbach (2005) reported very low completion rates for community college students in part due to open enrollment policies not as common in four-year colleges and universities.

While many of the findings in the literature review were based on studies of distance education in general, I believed it was important to note online education as a component of distance education brings with it the additional facet of using computer technology. Mannan (2003) studied technical college students in online classes and found in addition to learning the subject matter, the students simultaneously had to deal with the technology. Consequently, while much of the research reported in this review may be applicable to online learning, the addition of the need for the student to use computer technology in online education appears to be an additional component in the distance learning process.

Finally, I could find no literature directly related to institutional change and the adoption of online learning. I found studies on individual instructor's adoption of online learning methods, and strategies used to promote student learning and success. Studies specifically detailing the institutional and individual change process with regard to online learning in higher education appeared absent from the literature.

A gap in the scholarly literature regarding the experiences of academically disadvantaged students' experiences and the accessibility of online learning to a diverse student population at two-year colleges also exists. While reports of individual instructor adoption of online technology exist, the general process for migrating to a new learning environment as an institutional change was also absent in the research. These gaps support the need for my case study of online learning at a two-year institution undergoing change at the *institutional, instructor, and student level.* I adopted several theories to form my conceptual framework for conducting this study. I next describe theories related to analyzing change, beginning with the nature of institutional and individual change and ending with theories related to pedagogical practices and student success.

Organizational Theory

Organizational theory examines how organizations work as "social systems, and how people behave as people participate in and make them happen" ("Organizational Theory," 2000). Organizational theorists examine the individual behaviors comprising an organization's culture and use this theory to shed light on strategic leadership techniques affecting positive institutional change (Bolman & Deal, 2003). A number of organizational theorists provide windows into the structure and culture of organizations. Using frameworks and metaphors to offer alternative ways of viewing an organizational situation, organizational theory provides leaders with various lenses useful in examining and solving complex organizational issues (Bolman & Deal, 2003). Effective leaders are able to look at

organizational situations from different angles making multiple courses of action possible (Morgan, 1997).

Bolman and Deal (2003) used multiple perspectives to examine organizations, including structural, human resource, political, and symbolic frameworks. The structural frame, characterized by organizational charts, examines how individuals in the organization function based on their responsibilities. The hierarchical structure of the organization governs through rules, policies, and procedures thus facilitating a positive blending of individual responsibilities and achieving the desired outcome for the organization.

The human resource frame depicts organizations as families made up of "individuals with needs, feelings, prejudices, skills, and limitations" (Bolman & Deal, 2003, p. 14). Using a human resource frame, desired action evolves by individuals feeling positive about what they are doing. The human resource frame emphasizes how the interaction between the organization and employees influences employee retention, commitment, and productivity (Bolman & Deal, 2003).

The political frame views organizations as competitions for "power and scarce resources" (Bolman & Deal, 2003, p. 15). Groups within the organization compete against each other for the resources meeting their best interests. Issues in the political frame arise when the most powerful fail to represent the best interests of the organization.

Lastly, the symbolic frame describes organizations as tribes or cultures. It focuses on the way individuals use symbols to create meaning. The symbolic frame views symbols as a deep rooted component of the organizational culture. Symbols help define organizational members and bind them to the organization (Bolman & Deal, 2003). To create organizational change using the symbolic frame, individuals in the organization must undergo a cultural change causing abandonment of past "rituals" for ones more beneficial to the present organizational reality (Bolman & Deal, 2003).

While Bolman and Deal's (2003) frame explained frames leaders might use to "re-frame" their conception of organizational operations prior to reorganization or change, Morgan (1997) offered metaphors to investigate "fresh ways of seeing, understanding, and shaping the situations we want to organize and manage" (p. 6). The biological metaphor used to understand organizations in the midst of change viewed organizations as "open" and vulnerable to a wider environment. Morgan (1997) further characterized organizations as organisms needing sustenance from their broader parent environment. An organization and its individual members have needs to be satisfied; they rely on their wider environment to fulfill those needs. It is important for the organization to develop a proper relationship with their environment to ensure its survival (Morgan, 1997).

The population-ecology view of organization uses Darwin's theory of evolution to explain the environment selects certain organizations for survival and discards those organizations unable to successfully compete (Morgan, 1997). The organization competes with similar organizations within a shared environment. The organization is dependent on the larger environment for resources supporting its survival. If the organization is not successful in this competition, it will not receive resources and will not survive.

Contingency theory suggests organizations are open systems needing to adapt to ever changing environments (Morgan, 1997). Organizational leaders are responsible for both analysis and satisfaction of internal organizational needs and external system needs. The organization must diligently analyze its larger environment and have enough flexibility to quickly adapt if it is to survive (Morgan, 1997).

Wheatley (1999) also viewed educational organizations as complex living systems needing to adapt to a changing educational landscape to "remain purposeful and effective over time" (Section 1, para. 3). She believed successful organizations are cognizant of their surrounding environment and approach organizational development by complimenting rather than destroying others in their encircling world. Wheatley viewed organizational change as occurring through a change in meaning, when the

status quo is disrupted and individuals become upset enough to change the organizations mode of operation.

The human response to change, as a response to changes in the environment, often involves disturbance, distress, confusion, uncertainty, and finally chaos (Wheatley, 1999, Section 2, para. 9). At this final point change may occur. The next section explores theories concerning the change process.

Change Theory

I adopted several change theories to analyze my findings related to institutional and individual change. Examining change from an institutional and individual basis offered many insights regarding how institutions and individuals respond to external mandates and challenges in a competitive environment.

Lewin (1947) identified a "3-Step" model of change (p. 228). The first step, unfreezing, involved the individuals of an organization unfreezing their reliance on the status quo. They realize the way business was conducted in the past is no longer acceptable in today's reality. A "survival anxiety" exists; the realization change must occur in order to survive (Schein, 1996). Second, the moving step involved change from unacceptable to acceptable behaviors. During this phase group members repeatedly practice new behaviors until they reach competency. The third step, freezing, occurs when the new behaviors become so entrenched there is no regression to old behaviors (Burnes, 2004).

Lippitt, Watson, and Wesley's (1958) seven-step change process emphasized the role of the change agent. First, the organization realizes a need for change usually through prompting by the change agent. Next, a relationship between the organization and change agent develops. Third, the collaborative relationship between organization and change agent reevaluates the problem. In steps four and five an action plan is established and implemented. The last two steps of the change process involve maintaining the change and ending or redefining the role of the change agent.

Bridges (1986) outlined a three-step transition process individual's experience. These steps involved (1) letting go of the old situation and identity, (2) negotiating the "neutral zone" between old and new realities, and (3) making a new beginning (p. 25). Unlike change which can be planned and managed, Bridges viewed transition as a psychological process individuals experience at varying speeds. He emphasized the importance of the change agent recognizing the psychological process of transition, and the individual support needed as people work through the process. Bridges cautioned transition was more than stopping one action and beginning a new action, it involved a much more complex and emotional process.

Hall (1974) formulated a Concerns-Based Adoption Model (CBAM) focusing specifically on change in an educational setting. Hall saw a direct correlation between the amount of use an innovation received and the level of concern an individual experienced during use of the innovation. He developed a continuum (see Table 1) used to assess an individual's level of concern (LoC) and level of use (LoU)

Table 1. Concerns-Based Adoption Model (Hall, 1974, p. 8-20)

Level of Concern	Level of Use
0. Unaware	0. Non-Use
1. Awareness	1. Orientation
2. Exploration	2. Initial Training
3. Early Trial	3. Mechanical
4. Limited Impact	4. Independent
5. Maximum Benefit	5. Integrated
6. Renewal	6. Renewing

In Hall's (1974) model LoC and LoU stages correlate with each other. The lowest LoC and LoU stage might occur prior to the user's awareness an innovation exists. LoC/LoU 1 involves acquiring preliminary information of an innovation and how it might impact the individual. Next, LoC/LoU 2

entails further research and the beginning of training using the innovation. In LoC/LoU 3 the individual is concerned with the amount of time needed to learn implementation of the innovation and begins to use the innovation in a superficial manner. LoC/LoU 4 involves the individual user assessing the impact of the innovation on the student learning process and reaching competency in the innovations use with his/her own students. The last two stages move beyond an internal focus of self and students and expand to include a collaborative approach benefiting other colleagues and the institution as a whole.

As organizations and individuals move through steps in the change process, they adopt and develop competencies in new innovations or practices (Bridges, 1986; Hall, 1974; Lewin, 1947). The change from face-to-face to online learning involves the adoption of new pedagogical practices. The next section reviews individual adaption to the online learning environment through the adoption of new pedagogy and building community.

Effective Pedagogy and Communities of Practice

Pedagogy is the "knowledge and skill that a person needs to develop in order to become a successful teacher" ("Pedagogy," 2008). Chickering and Gamson's (1987) "Seven Principles for Good Practice in Undergraduate Education" are often used as an assessment tool for pedagogical practice in face-to-face courses. These practices include:

1. Encourages student-faculty contact.
2. Encourages cooperation among students.
3. Encourages active learning.
4. Gives prompt feedback.
5. Emphasizes time on task.
6. Communicates high expectations.
7. Respects diverse talents and ways of learning. (p. 2)

These same characteristics might also be applied to the online learning environment. In fact, Graham et al. (2001) created a list based on the seven principles specifically addressing online practices:

1. Provide clear guidelines for interaction with students.
2. Well-designed discussion assignments facilitate meaningful cooperation among students.
3. Students should present course projects.
4. Provide two types of feedback: information feedback and acknowledgement feedback .
5. Online courses need deadlines.
6. Challenging tasks, sample cases, and praise for quality of work communicate high expectations.
7. Allowing students to choose project topics incorporates diverse views into online courses.

These examples of pedagogical best practices, shown in Table 2, have many similar characteristics, with modification made for the differences in face-to-face learning and the online environment. Because Chickering and Gameson's (1987) principles are a foundational measure for evaluating pedagogical practices, the need to apply them in a modified format to online education seems apparent.

Table 2. Comparison of Best Practices

Face-to-Face Learning Best Practices (Chickering & Gameson, 1987)	**Online Learning Best Practices** (Graham et al., 2001)
Student–faculty contact	Clear guidelines for student–faculty contact
Student–student contact	Discussion facilitating student cooperation
Active learning	Presentation of projects
Prompt feedback	Instructor feedback
Time on task	Deadlines
High expectations	Challenging tasks, sample cases, praise for excellent work
Diverse talents/learning styles	Student choice of topics

Student-faculty contact appears important in any learning environment; however, the online learning environment may invite inappropriate student contact during faculty personal time as students may call and email faculty, expecting an immediate response, during all hours of the day and night (Graham et al., 2001). Providing clear guidelines encourages contact while maintaining faculty free-time (Graham et al., 2001). Cooperative learning between students fosters student engagement in the learning process (Sugar et al., 2007). The traditional face-to-face classroom may facilitate student-student interaction through group work, project presentation, and class discussions. In an online course instructors may need to deliberatively create opportunities for student-student interaction through activities such as required participation in asynchronous small group discussions and presentation of course projects to the instructor and other students (Graham et al., 2001).

Instructor feedback is an integral element in both face-to-face learning and online learning (Chickering & Gameson, 1987; Graham et al., 2001). In fact, Bangert's (2008) study of online learning found student satisfaction with online courses focused on only two main qualities from Chickering and Gameson's (1987) original principles (1) encourages student-faculty contact and (4) gives prompt feedback. In student evaluation of online courses, instructor's prompt response to questions and the amount of faculty-student contact instructors provided ranked highest in student importance. Differences in how feedback is given and received in the two learning environments seem obvious. In a face-to-face course physical and visual cues reassure students in real-time. The online environment may not typically allow for real-time reassurances an assignment or question was received by the instructor. Graham et al. (2001) urged online instructors to respond not only to student questions in a timely manner but also to give acknowledgement feedback an assignment or question has been received and an indication of when the student might receive a response.

One of the disadvantages reported in online learning is the inability of students without good self-direction and self-discipline to complete assignments on time (Bell, 2007; Hardy & Boaz as cited in

Roblyer & Marshall, 2002). Chickering and Gameson's (1987) time on task principle addresses this for the traditional classroom; however, the online environment may make this more difficult to monitor. Although flexibility is important for the online learner (Allen & Seamen, 2011), "regularly-distributed deadlines encourage students to spend time on tasks and help students with busy schedules" (Graham et al., 2001, "Principle 5," para. 1).

The last two principles involving high expectations and diverse talents and learning styles might be best accomplished in an online environment through challenging assignments, instructor modeling of expectations, instructor praise of quality work, and allowing students the opportunity to chose topics of interest to them (Graham et al., 2001). Intentional instructor modification of Chickering and Gameson's (1987) principles to the online environment may improve teaching practices and increase learning outcomes.

Lastly, an important concept in learning involves the formation of "communities of practice." The phrase, "communities of practice" describes a group of people knit together through a common practice or interest (Lave & Wenger, 1991). They communicate best practices and share information directly with each other, learning from one another (Lave & Wenger, 1991). Communities of practice have been shown to be effective in developing expertise in informal types of knowledge ("Tacit Knowledge," 2006). Instructors may participate in communities of practice to gain professional expertise and students might be considered to be members of a community of practice based on learning goals.

Palloff and Pratt (1999) emphasized the importance of building community in the online classroom. Student detachment may occur without a sense of community, causing students to become disengaged and at increased risk of failure. Kear (2011) agreed with this assessment asserting students become more engaged when they feel a sense of community with the other students in an online course. To foster a sense of community, instructors must employ good pedagogical practices online as they

would in a traditional face-to-face classroom. For example, Graham et al. (2001) found asynchronous presentations inviting classmate critique created a sense of community allowing students to learn from each other.

Summary

This chapter presented an overview of the scholarly literature pertaining to the history of distance learning and the advent of online education, experiences related to instructor adoption of technology, changes in pedagogy in the online environment, and elements leading to student success in an online environment. Theoretical frameworks forming the conceptual framework were presented and are used later in analyzing the data described in chapters four and five pertaining to important themes found in this study. The areas of analysis included reasons for a change to online learning, how change was implemented, the effect of the change on faculty and students, pedagogy in the online environment, relationships and community, and attributes of successful learners. The next chapter provides a description of the methods adopted for this study, participant details, information on data collection and analysis, and issues related to the quality of the research method adopted.

CHAPTER THREE

METHODOLOGY

My interest in the institutional and individual process of transition from face-to-face learning to an online learning environment, coupled with my concerns about the welfare of academically disadvantaged students in online learning courses, prompted me to pursue this study. I chose a qualitative research method for two reasons. First, I wanted to understand the process of change as it was experienced by the institution and the instructors. Second, much of the literature and institutional/system data associated with online learning and student success is quantitative in nature and may not fully reflect the underlying meaning of the statistics.

Qualitative research is based on "the view that reality is constructed by the individuals interacting with their social worlds" (Merriam, 1998, p. 6). By observing and talking with individual instructors and students, I hoped to gain an understanding of how instructors personally experienced an institutional change from face-to-face learning to online learning and how the change affected student learning. Unlike quantitative research which seeks to take a theory and support it with statistics, qualitative research attempts to take data, induce meaning, and apply the meaning to theory (Merriam, 1998). To understand the change process directly through the experiences of the affected individuals, I chose a qualitative research approach.

I felt the statistics associated with quantitative research studies regarding online learning did not consider the causes of student success or failure. I believed it was important to go beyond the statistics normally collected to support or oppose the use of online learning, particularly with academically disadvantaged students, and instead hear directly from the students about their experiences. Learning about their experiences might facilitate development of better institutional policies and procedures to increase the success of academically disadvantaged students in online courses.

Finally, I chose a qualitative research method realizing the original focus of my study, the experiences of academically disadvantaged students in online learning, might involve much more than simply their experiences. By nature, qualitative research is a flexible process involving reflection and interconnection as information is gathered and additional relevant components of the study emerge (Maxwell, 2005). Merriam (1998) described qualitative research as "emergent and flexible, responsive to changing conditions of the study in progress" (p. 8). I chose a qualitative research approach to allow expansion beyond the experiences of academically disadvantaged students with the goal of learning more about all factors potentially affecting the online teaching and learning environment at RMCC.

Phenomenological Case Study Research

I selected a phenomenological case study research approach to answer the research questions: How did traditionally-trained instructors, working within a single two-year college, experience change as a result of the transition from face-to-face or "on-ground" classrooms to an online learning environment? What pedagogical practices proved effective in helping students learn successfully in an online environment? How do academically disadvantaged students experience online learning during their first attempt in an online course? How did their instructors support them?

Phenomenological research focuses on understanding how a phenomenon is experienced from the perspective of the participant (Bogdan & Taylor, 1975; Merriam, 1998). Creswell (2007) defined phenomenological research as research which "describes the meaning for several individuals of their *lived experiences* of a concept or phenomenon" (p. 57). Creswell described phenomenological research as best suited when it is important to understand several subjects' common experiences of a phenomenon so practices and policies can be developed to improve that experience. This intention and purpose exactly suited my study. I wish to explore the "lived" experience of faculty members experiencing the change process and also discover the experience of academically disadvantaged students' experiences with regard to online learning. I first analyzed student and instructor experiences

to understand their collective experience and later recommend strategies for improving the process of institutional change, including creating strong online learning environments.

Case study research further expands on a phenomenological approach by analyzing the bounded system of one institution. I interviewed instructors, students, and tutors, and examined data from RMCC, including historical and financial data, state policies, and enrollment data, to establish the context for the institutional implementation of the change to online learning. I explored how instructors and students were affected by the change to online learning, the pedagogical strategies instructors used to facilitate student success, the challenges and opportunities online learning provided, and student experiences in the online learning environment.

The case study research approach allowed me to examine the approach to change and the student experiences in their online course offerings within a single setting. Bogdan and Biklen (2003) described case study research like a funnel. The researcher proceeds through a study based on the information collected along the way. Case study research allows the researcher to "continually modify the design and choose procedures as they learn more about the topic of study" (Bogdan and Biklen, 2003, p. 54). My study began with student interviews and expanded to include instructor insight of online learning, and the process of change they experienced by the institutionally mandated change to online learning. Case study research also fit and supported the goals of my study, namely to understand the experiences of the instructors and students engaging in online learning and later, to identify effective methods for implementing change to foster success for a diverse student body.

Like phenomenology, case studies are used to gain better understanding of what is actually being experienced, and use the understanding to "influence policy, practice, and future research" (Merriam, 1998, p. 9). The rapid increase of online learning in higher education makes it important to understand (1) how best to mitigate the change process most ethically and (2) how to make the experience of all students, including those who are academically disadvantaged, most positive and successful in the

online learning environment. The phenomenon of growth in online learning coupled with the experiences of students and instructors at one institution made the combination of phenomenology and case study research the best approach for this study. Essentially, I adopted the case study research within the qualitative tradition and also borrowed from assumptions and methods found in phenomenology such as bracketing out my own views, interviewing a number of people involved in online learning (the phenomenon), analyzing and reducing the data to define themes, and finally creating a rich description to "convey an overall essence of the experience" (Creswell, 2007, p. 60). I describe this study as a phenomenological case study because of the combined methods approach I adopted with qualitative research. The remainder of this chapter focuses on the setting, research sample, data collection methods, data analysis, ethical considerations, researcher bias, and limitations of the study.

Setting

The setting for this study, RMCC, is a rural Midwest community and technical college comprised of several small campuses. The college is a member of a large statewide system, the State College and University system, with over 50 campuses across the state. The State College and University system provides oversight and supplemental funding to RMCC. The students enrolled at RMCC comprise a diverse population including full and part-time students, nontraditional and traditional students, single parents, working adults, and a large majority (89% in fall 2006) of academically disadvantaged students considered at high-risk for failure. An academically disadvantaged student is defined as a student who has a GPA below a 2.0 on his/her college or high school transcript, or has placed in a developmental class in math, reading, or writing based on skills assessment test scores.

The Research Sample

I used a purposeful sample of seven students, five classified as academically disadvantaged and two non-academically disadvantaged, 18 years of age or older, enrolled for the first time in an RMCC

online class. These seven students enrolled in courses in both the liberal arts and technical programs. I selected students enrolled in different course subject areas to lessen the possibility of one discipline or course being found more or less conducive to an online environment. While generalizations cannot be made from a single case study, the diversity of course types and instructors was used to lessen the possibility of the instructor being the primary cause of a positive or negative experience. This strategy might increase the validity of the data. Students enrolled in more than one online course were not included. Additionally students who self-disclosed a learning disability were not included because my focus was on students with a poor academic history not caused by a learning disability.

I also recruited a purposeful sample of 18 RMCC instructors teaching an online class, as well as two tutors who interacted with online students on a regular basis. My intent was to explore their experiences in making the change from traditional face-to-face courses to an online learning environment. I also hoped to gain both instructor and tutor perspectives on: working in an online environment, working with students enrolled in an online course, specific problems they encountered in the online environment, strategies they used to deliver course content and interact with students, and their general perceptions of online learning. My intent was to gather information not only through the lens of the students but also through the lens of the instructors as they worked closely with students, including the academically disadvantaged online student. Table 3 provides basic information including gender, type of course taught or enrolled in, role, and academically disadvantaged status.

Data Collection Process

Prior to beginning this study, I secured permission from the University of St. Thomas Institutional Review Board (see Appendix A). Additionally, I obtained permission from RMCC prior to beginning the data collection process (see Appendix B).

In order to include students who registered late, contact with the students was made one week prior to the beginning of the semester and continued through the first two days of the semester. During

this time frame, RMCC's registrar emailed RMCC's Director of Institutional Research a list of the names and email addresses of students identified as first time online learners, who were 18 years of age or older. The Director of Institutional Research then emailed a letter of invitation to qualifying students (see Appendix C) outlining the purpose and structure of the study. Eleven students responded to this request. Due to the low student response rate during the first semester, a second attempt following the same procedure was conducted during the second semester. I selected seven students to participate in the study from the pool of positive responders based on the sampling criteria referenced above. The study was conducted on a purely voluntary basis. Each student volunteer was emailed a survey (see Appendix D) and a consent form (see Appendix E) to complete no later than the first week of the semester.

The survey included a question designed to assist students in self-identification of their status as potentially academically disadvantaged students. Those students indicating they had a documented disability were eliminated from the study. Both those chosen for the sample and those eliminated were emailed a letter (see Appendices F and G) thanking them for their willingness to participate and indicating whether they would be contacted for a follow-up interview upon completion or withdrawal from the course.

Although I was only able to interview seven students, their experiences led me to investigate online faculty experiences with online learning, specifically how they transitioned from face-to-face teaching to an online environment, the strategies they use to foster success, and their experiences with diverse student populations in online courses. After securing additional approval from the University of St. Thomas Institutional Review Board to amend my previous proposal (see Appendix H), I secured the names and email addresses of those faculty teaching an online course from RMCC's website. Next, I emailed each online faculty member a recruitment email (see Appendix I) outlining my study and asking for their voluntary participation. A consent form (see Appendix J) was emailed to faculty who

Table 3. Participants

Name	Gender	Course Type	Role	Academically Disadvantaged
Patricia	Female	Technical	Instructor	N/A
James	Male	Liberal Arts	Instructor	N/A
Linda	Female	Technical	Instructor	N/A
John	Male	Liberal Arts	Instructor	N/A
Barbara	Female	Technical	Instructor	N/A
Elizabeth	Female	Technical	Instructor	N/A
Robert	Male	Technical	Instructor	N/A
Jennifer	Female	Technical	Instructor	N/A
Michael	Male	Liberal Arts	Instructor	N/A
William	Male	Liberal Arts	Instructor	N/A
Maria	Female	Technical	Instructor	N/A
Susan	Female	Liberal Arts	Instructor	N/A
Margaret	Female	Liberal Arts	Instructor	N/A
Dorothy	Female	Liberal Arts	Instructor	N/A
Lisa	Female	Liberal Arts	Instructor	N/A
Nancy	Female	Liberal Arts	Instructor	N/A
Karen	Female	Liberal Arts	Instructor	N/A
David	Male	Liberal Arts	Instructor	N/A
Richard	Male	Liberal Arts	Student	Yes
Betty	Female	Liberal Arts	Student	Yes
Sharon	Female	Liberal Arts	Student	Yes
Charles	Male	Technical	Student	Yes
Helen	Female	Technical	Student	Yes
Sandra	Female	Liberal Arts	Student	No
Donna	Female	Liberal Arts	Student	No
Carol	Female	N/A	Tutor	N/A
Ruth	Female	N/A	Tutor	N/A

volunteered to participate in the study. Once I gained access to participants, I established the protocol for interviews as described in the next section.

Interview Procedure

Prior to conducting the actual interviews I tested the interview questions using two volunteers similar to the sample population to be certain the questions worked well. Based on my pilot interviews, I revised the questions as necessary based on the pilot run. The semi-structured interviews (see Appendices K and L) focused on (1) how the students viewed their first time experience in an online class and what made their experiences successful or unsuccessful and (2) how faculty members transitioned from face-to-face to online teaching, including the strategies used to promote student success and also their experiences in an online classroom. After preparing to conduct the first interview, I started contacting participants to arrange an appointment.

I first reviewed the nature of the study, protections, and consent form with all participants. To ensure the participants answered honestly and did not fear retribution from the instructor or any other person associated with the college, I explained to each participant no actual names, including the name of the institution would be used in the study. Those student participants completing the online courses were not interviewed until after final grades were posted ensuring their grade would not be affected by their participation in this study.

Because most of my participants lived in another state all but four interviews (faculty) were conducted over the telephone. I tape-recorded each interview after receiving permission from the interviewee to do so, using the recording to produce an exact transcription of the conversation for analysis.

To ensure confidentiality, all tape recordings, notes, and other documents related to the study were kept in a locked file cabinet in my office. All participants' names and any locations that might

reveal a participant's identity were changed. To the greatest extent possible anonymity of participants was maintained.

As soon as possible after the end of each interview, I replayed the interview and jotted down notes containing my initial observations and thoughts. Because the interviews were conducted over the course of two years, I believed these notes would help me to further reflect on thoughts obtained from earlier interviews when I began the analysis of the data.

Data Analysis and Interpretation

I tape-recorded each interview and personally transcribed them verbatim. To maximize not only the taped word of the interview but also the visual cues, thoughts, and perceptions I encountered in the interview process, I transcribed the interview on the same day it was conducted. As I transcribed the interview I inserted observer comments including questions, things that surprised me, and areas I needed to question further. I read each transcript several times, highlighted significant phrases and made margin notes to assist in developing tentative categories and relationships for further analysis. I used spreadsheets and coding to separate the data into various themes. When data was unclear to me, I contacted the participant, if possible, for further clarification. To gain further insight, I informally tried out various theories and questions I had on faculty, staff, and students involved in online learning at other institutions.

My main objective in defining categories and relationships in my analysis of the data was to develop an understanding of what faculty members experienced as the institution transitioned courses from traditional face-to-face learning to an online environment, strategies faculty employed to enhance student success in online learning, faculty and tutor views of online learning, and student experiences in an online course. After studying the data, several themes emerged including: (1) participant and institutional experiences of change, (2) changes in pedagogy including teacher/student attitudes and

aptitudes adapting to an online learning environment, and (3) important elements needed for successful online learning.

As I collected and analyzed my data and discovered common themes, I adopted several theories related to individual and organizational change (Bridges, 1986; Burnes, 2004; Hall, 1974; Lewin, 1947; Lippitt et al., 1958; Morgan, 1997; Schein, 1996; Wheatley, 1999) as well as studies of effective pedagogy in "on-ground" and "online" learning environments (Bangert, 2008; Chickering & Gamson, 1987; Graham et al., 2001; Johnson, 2003; Kear, 2011; Lave & Wenger, 1991; Meyer, 2003; Palloff & Pratt, 1999). I used various theories to analyze the themes, shedding light on how the experience of participants and institutions moving to online learning involved a "change story" of individual and institutional challenges, including the adaptations needed to survive in a competitive environment. The "survival story" told by participants illustrates how they adapted to threats within their environment as a result of a "mandated" change. Faculty and student roles and perceptions changed, and new learning and teaching methods were needed to find success in online learning. I describe these findings in chapters four and five.

Ethical Considerations

To ensure confidentiality all tape-recordings, transcripts, and other documents were securely stored in a locked cabinet in my office, or on a password protected computer file. No one besides me or my dissertation chair had access to any interview tapes or documents. To ensure anonymity to the greatest extent possible, all participants' names, the institution's name, and the identity of the state were changed. These changes in no way altered the data's meaning, interpretation, or analysis. I took care to preserve the meaning of participant experience, and guarded against inserting my views and experience (to the degree possible) as I analyzed the data.

Researcher Bias

My interest in this study arose from my personal involvement with institutional migration from traditional face-to-face learning to online learning and its potential affect on my colleagues and students. The majority of the instructors used in this study were past colleagues, known to me personally. Although I no longer work with them, I was very careful to maintain profession distance during the interviews, adopting a professional manner and formal tone. I devised open-ended questions to avoid influencing participants, hoping to expand rather than limit their responses. During analysis of the data, I remained attentive of any bias from my personal experiences that might potentially interfere with my interpretation. I did this by finding support within the transcripts for claims made in summarizing the data.

Limitations

A common problem when dealing with college students is losing contact with a student if they stop coming to class. Often the contact information associated with a student is of a temporary nature, or the student chooses not to communicate further with the college for a variety of reasons. It is possible that valuable information about a student's online learning experience, specifically a student who drops out of a course, may be lost.

Over the course of a year more than 300 students were contacted for voluntary participation in this study. Student response rate was very poor, and I was only able to recruit seven students. Their insight was extremely valuable; however, based on the students' interview responses, I felt it was necessary to extend my research to include instructor and tutor experiences with online learning as a window to the student experience. By expanding the pool of eligible participants, I gained another perspective on the student experience.

Finally, I was limited by distance as most of the interviews were conducted over the telephone. Telephone interviews limited my ability to detect interviewee body language and facial expressions as

they answered interview questions. However, the number of participants interviewed and the eventual saturation of data provided good evidence regarding the validity of the major themes identified in this study. Because I knew faculty participants and no longer was employed by the institution, I had the advantage of a good relationship with faculty participants, increasing chances for honest reflection.

Summary

In this chapter, I explained the reasons I chose qualitative research and adopted a phenomenological case study approach. I described the setting and how participants were recruited, followed by a description of data collection and analysis. I also addressed ethical considerations, limitations, and researcher bias. The next chapter presents RMCC's institutional change to online learning and how it affected instructors, the first of two "chapters" in a story of individual and institutional change and survival.

CHAPTER FOUR

THE PUSH FOR ONLINE EDUCATION

RMCC started to explore the possibility of offering online courses in 1999. The college was made up of several small rural campuses each within about 60 miles of the next campus. RMCC offered two formats for course delivery, face-to-face learning in traditional classrooms, and "remote" televised classes delivered via interactive television (ITV). ITV classes typically consisted of an instructor with a physical class of students on one of the college's campuses teaching via television broadcast to classrooms on all or some of the other campuses.

When RMCC faced declining enrollment due to decreasing rural populations and increasing competition for state funding from colleges in urban areas, ITV offerings became more common. ITV allowed one instructor to reach all of the campuses and have a large enough class size to justify the course and the instructor's position. However, ITV proved unreliable as a vehicle for delivery of instruction due to technical breakdowns, difficulties with hearing and seeing materials, and slow, unreliable ways to distribute or receive assignments and tests between student and teacher. Students and instructors complained about the poor quality of ITV instruction, frequently expressing their dissatisfaction with it as a way to facilitate course delivery to remote campuses.

As student numbers stagnated, and rumors swirled about the possibility of having to close down one or more of the college's campuses, several factors combined to create new opportunities to increase course enrollment. Specifically, advances during the 1990s in computer technology and software applications began to make their way into the higher education arena, and the administrators at RMCC took notice. A different more viable way to deliver course offerings through online learning provided an appealing way to attract students and retain instructors through a cost effective and potentially more successful medium.

Online learning at RMCC offered a way to increase student enrollment in a declining market and add revenue to the bottom line. Although the personal nature of a small campus environment, and the face-to-face relationships faculty and students built with one another were important elements of the RMCC experience, administrators faced harsh pressure to increase enrollment or lose state funding. Such a loss would necessitate program cuts and possibly campus closures. The survival of programs, and portions of the institution itself, required pursuing alternate methods in recruiting students. Although instructors argued online learning would be detrimental to the retention of at-risk students, the college administration implemented new course delivery methods in the hope of increasing enrollment and saving the institution.

The Challenge: Increase Enrollment

The State College and University system, a mix of four year universities, community colleges, and technical colleges, introduced the concept of a new model for allocating state appropriations and tuition in 1996 (as reported in the December 18, 1996 Board Action Item – Approval of Allocation Model). Instead of distributing state funds based on expected tuition revenue and expenditure budgets submitted by each institution, the new model based allocation of resources primarily on weighted student credit hours. In effect, this meant smaller rural colleges with high cost technical programs and low student enrollment would face a drastic reduction in state allocation dollars. The State College and University system viewed this change as a way to strengthen performance-based resource allocation, reward efficiency and productivity, and bring change to the system. The new allocation model was to be phased in over a four-year period beginning in 1999. Like the other small colleges in the state, RMCC knew it would face funding cuts by maintaining its current mode of operation. If the institution was to survive, change was necessary.

RMCC's administration began to discuss online learning as an additional option for course delivery in 1999. Due to its open-enrollment policy, 89% of the college's first time full-time student

body (fall 2006) was classified as academically disadvantaged or at-risk of failure. When discussions about offering online courses began, instructors and tutors expressed concerns about online learning, arguing this would be a very poor mode of instruction for at-risk students. These concerns were based on perceived characteristics associated with at-risk students, including aural and dependent learning styles (Meyer, 2003). For example, students who are poor readers and learn better by listening and those who require extensive feedback and direction from the instructor were thought to be at a disadvantage in an online course. Many wondered if these characteristics often associated with at-risk learners would prevent students from succeeding in an online environment.

At the outset, administrators were very careful to discuss online classes as simply an alternative to the other modes of delivery, face-to-face and ITV, which would continue to be offered. In fact, the college made a point of publishing an online document outlining the characteristics of a successful online student, designed to help students decide if they should enroll in an online course. As the threat of reduced funding loomed, what began as a choice to teach or learn online, became the only option as the need to increase enrollment became a driving factor in converting many face-to-face classes to an online only option. The need to increase enrollment became the driving factor in the growth of online education at RMCC. Interviews with RMCC instructors confirmed this finding.

Mandated Change at RMCC

Fourteen instructors identified administrative pressure as the chief reason they became involved in online learning. Because the college struggled to increase revenue, faculty felt their jobs were in jeopardy if they did not transition courses to online learning when asked by administration to do so. Even instructors, who were initially hired under the auspices of teaching in a traditional classroom, were quickly pressured to convert to an online environment.

Elizabeth described how enrollment at the college began to drop in 2000. She was asked to transition her course to an online offering to increase enrollment. Robert acknowledged enrollment in

evening classes had started to decline because people didn't want to "commute and go to night classes anymore." He saw online courses used as a substitute for enrolling in night classes. William described how he began to lose students in his face-to-face humanities courses, as more humanities courses were offered online by other instructors or institutions within the system. He felt that if he wanted to continue to teach, he had to transition to online teaching to avoid losing his classes. "It was either change to teach those classes online, or to lose them, and I couldn't stand the thought of losing those classes so I decided to adapt."

Robert described the move as the college's attempt to survive. RMCC had to think outside the box and find ways to reinvent itself to attract more students in a geographic area with a declining and aging population. Students enrolled in Robert's online classes from various states across the country, allowing RMCC to increase enrollment by attracting students from other private colleges who were slow to offer any online courses.

Maria, who initially became a teacher because of her deep belief in "hands-on education," realized the financial necessity for the move to online learning. Declining enrollment and stagnate population base as well as competition from other colleges offering online programs predicted the move. Maria believed the move was in the best interest of the college and her continued employment. She explained how she now teaches students from larger metropolitan areas, as well as students from other states. Online learning provided flexibility, allowing one student who moved to another state to finish Maria's program of study because of online learning.

All of the instructors reported moving a face-to-face course with low enrollment to an online environment increased class numbers, often dramatically. David, for example, spoke about observing a colleague's course grow from three students to over 60 after she converted it to online. William also reported dramatic increases in enrollment when he transitioned his face-to-face class. Before online

learning, he "struggled to get five or six" students, however, moving to an online format allowed his enrollment to grow to a "healthy" size.

Advantages and Opportunities

While the financial benefit to the college was the major thrust for a move to online learning, faculty spoke positively about the opportunity online learning provided to students who might otherwise not have access to education due to their schedule or location. As John reflected on some of the problems of online education, he considered these minor when compared to the benefits it afforded his students. He felt the opportunity "totally overwhelmed" the disadvantages of an online learning environment. He gave the example of the college's online nursing program, and his conversation with a student who was thrilled that she didn't have to drive 40 miles each way to class to complete her degree.

William emphasized the importance of online courses to nontraditional students. He explained that many of his students were females, some single mothers who were working full-time, and trying to complete their education as well. He empathized with their situation and marveled at the schedule they needed to keep stating: "They log in at 2:00 a.m."

Even though Maria was not initially keen on teaching online, she too realized the opportunities it presented to students. Expressing compassion for her students Maria knew their struggle to advance their education while working in a dead end job. "Students sit down and listen to a video over their lunch hour and try to get out of a dead end position . . . and how do you fight that?"

Student responses largely supported the instructors' feelings. Six of the students interviewed expressed the importance of having an online course, even though five of them indicated that taking a specific course online was their only option even if they would have preferred to take it face-to-face. This seemed to be a double-edged sword as online courses gave some students an opportunity they would not have had, but also forced others into a learning environment that was not their preferred choice. Richard explained that although he would have preferred to take his course face-to-face, taking it

online actually helped him because he was bothered by outside noise, and "can't get the work done with other people around me." He appreciated being able to work from his apartment even though he took some of his other classes on campus.

Donna, a nontraditional middle-aged student, searched for a writing course to take in her community. Although she was willing to commute, the college within driving distance did not offer a course that fit in with her work schedule. While she felt apprehensive about taking a course online because she wondered about her technical aptitude, she enrolled in RMCC's online writing course because it was her only option, and she was happy to have that opportunity.

Lastly, two of the instructors related how they themselves would not be in teaching positions had it not been for access to online classes. Karen related her initial frustration at being stuck in a rural town, and not having access to higher education. An online program was the only opportunity available to advance her career as a college instructor. Likewise, Linda stated that because her own rural town was an hour's drive from the closest college, online education provided her the opportunity to complete her undergraduate degree.

RMCC's initial move to online education was necessitated by the need to increase enrollment in a declining rural population or face the risk of closing campuses due to reduced state funding. Although instructors originally viewed the change as detrimental to the educational needs of at-risk students, the pressure from administration and threat of job loss compelled them to transition many of their face-to-face courses to online learning. Upon experiencing the migration to online learning, both instructors and students expressed the advantages and opportunities it afforded those who otherwise would not have access to higher education.

Survival of the Fittest or Fitting

Morgan (1997) characterized organizations as living systems existing in a wider environment dependent on the external environment to meet their various needs. In this context, RMCC may be

viewed as existing within the wider environment of the State Colleges and Universities, relying on them for supplemental funding. Using a biological metaphor, RMCC became an organism adapting to the changing higher education landscape.

Population ecologists theorize the environment selects surviving organizations based on their ability to compete (Morgan, 1997). Organizations compete with other similar organizations for resources; the organization's ability to acquire these resources leads to its ultimate survival. Similarly, contingency theory addresses the need of organizations to adapt to their environment. Organizations must study the changing climate and adapt their mode of operation to best fit-in to their present environmental reality in a changing environment, such as the growth of technology in daily life. An organization's ability to be flexible in a changing environment allows it to thrive (Morgan, 1997). In the case of RMCC, constraints by the State system would eventually force underperforming institutions to close. The tension and struggle RMCC faced within the larger environment seems evident as organizational survival depended on state funding, putting the institution in a competitive position within its own system. RMCC was forced to change its approach to educational delivery to fit within the larger educational environment.

Declining rural populations and reduced state funding due to budget demands imposed on the larger state organization from changing student demographics and the needs of larger, more profitable institutions created a change in the relationship within the organizational environment. Theoretical biologist, Ludwig von Bertalanffy inspired the "open systems approach" to organization, where the organization must be cognizant of the environment in which it exists and respond accordingly (Morgan, 1997). The stagnant enrollment at RMCC along with the impending cuts in state funding caused the college to reevaluate the environment of higher education in a rural area and "develop appropriate operational and strategic responses" (Morgan, 1997, p. 42) through a transition from face-to-face and ITV instruction to online learning. The move to online learning served as an external mandate from the

institution to its employees: a move motivated by the need to survive as an institution and for instructors to retain their jobs.

Wheatley (1999) also viewed organizations as living systems composed of networks that are "incredibly messy, dense, tangled, and extraordinarily effective at creating greater sustainability for all who participate in them" (Section 1, para. 4). The State College and University, with its statewide web of urban and rural two and four-year institutions provided the lifeblood through supplemental funding to RMCC. As the needs of the system's higher educational institutions changed, the method for allocating funds changed as well, requiring RMCC to rethink how it could best participate in the larger system to survive.

Although RMCC was most comfortable offering courses in face-to-face or ITV formats, the reality of poor enrollment and cuts in state funding necessitated a change in their approach to education. Wheatley (1999) described the process of change in living systems as needing to occur through a change in meaning. This change in meaning most often occurs when the status quo is disrupted and people feel disturbed enough by the future outlook to change their systems of belief. Wheatley (1999) described this phenomenon:

> When the disturbance has swelled to great intensity, change is at hand. The system has been knocked completely off-balance; it can't make sense of the disturbance by relying on past practice or beliefs. This point of disequilibrium is the point when change is finally possible. The system can no longer avoid the need to let go of its current beliefs, structures, patterns, values. It must abandon the meaning it used to construct its world. (Section 2, para. 9)

The administration and faculty at RMCC faced the looming possibility of faculty lay-offs due to low-enrollment, and even the possibility of one or more campus closures; change could no longer be ignored. The changing educational environment caused the institution to reevaluate its position on course delivery and offer more online courses. This transition not only forced change in RMCC's way of doing

business, it also forced instructors to move outside of their comfort zone and approach teaching from a completely different angle. Changing pedagogical techniques was not an easy transition for those who had no experience with online teaching and learning.

Inexperience and the Race to Compete

Early adopters not only felt pressured to participate in online learning to increase enrollment but also described considerable challenges in their initial efforts to teach due to lack of experience, professional development, and support during the transition. They also expressed having uncomfortable feelings of being ill-prepared to teach in an online environment. Unlike the methodic pedagogical training and development teachers typically experience in their preparation programs, the move to online learning came swiftly and with very little pedagogical and technological support. To compound their frustrations, the college used a complicated homegrown LMS. David described the LMS as "horrible but cheap," and two others echoed this assessment. The difficulty of forging into an entirely different way to teach was made even worse with an inadequate platform.

Seven of the instructors described their first attempts at teaching online as trial and error, or as Dorothy shared, "I muddled through a lot." Robert, who had been with the college for over 20 years, related how he was asked to transition his courses to online with absolutely no training. He spoke of the trial and error process he went through, and how he tried to put himself in the students' shoes and imagine what they were seeing "on the other side of the computer." He spoke with real emotion of trying to understand what might be going on in their heads, and how he could transition his face-to-face information in the best way to "help them as much as possible."

Dorothy, who taught at one of the smaller campuses, shared how after teaching in a face-to-face technical program for one semester, her supervisor asked her to teach an online class. She reflected on how uncomfortable this made her, particularly because she was overwhelmed by the technology, and had "minimal assistance" when it came to designing or delivering an online course. Although the college

began transitioning to online learning in 1999, Dorothy was asked to transition in 2005, and at that time very little support existed for online instructors.

Barbara had a similar experience, relating how she taught for a year in a strictly face-to-face learning environment until she was told by administration that she must put at least one class online. She was very unwilling to do so, and stated how uncomfortable she was with the technology itself. “I did a very poor job the first semester . . . I didn’t feel like I could do a good job of teaching online when I really didn’t understand how to use the technology.” Barbara felt she had no choice in the matter, and that her job depended on making this transition despite her lack of training and support.

Even some who were hired specifically to teach online courses received very little support or guidance. John, a young humanities professor, came to the college in 1999 never having taught online before. The administration asked him to put one of his classes online within a year of his arrival. He explained how it was his first experience working in an online environment, adding that he “hadn’t even read about it, or been trained in it.” He too worked his way through the experience of teaching online by trial and error. He asked questions of equally inexperienced peers as he went along instead of receiving support or training from the college.

RMCC hired Patricia in 2007 to transition a long established face-to-face technical program into a totally online offering. She lacked any teaching background, coming straight from her practical field into higher education. She experienced difficulty during the first year, not only trying to figure out how to teach on her own but also how to teach in an online environment. She spent her first year on an emotional rollercoaster, often in tears, and received no direction from her supervisor. “I don’t want to say that I didn’t get training but I’m not thinking of any training off the top of my head.” Her only strategy was to read the manual and try to learn how to do things on her own. She felt she did a very poor job her first year, feeling frustrated. A year and a half into her teaching experience, she said, “I’m starting to learn then what’s working and what’s not working” and felt more comfortable in her role.

In addition to the lack of support faculty felt as they transitioned to online, three instructors reported feeling additional stress at being asked to move quickly in creating an online course. Margaret was given a week and a half to develop an online course, and said this contributed to pedagogical inadequacies her first semester. Dorothy described being asked by her supervisor to teach an online course and have it "prepared and delivered in record short time." She explained how challenged she was during that first semester and how she revised at least half of the course after stumbling through it the initial time. Finally, Robert reported that even now, there was an expectation that an online course could be created quickly, relating he was recently given three weeks to prepare a brand new summer course.

In a state of fiscal uncertainty, RMCC rushed to implement a change to online learning at the expense of faculty support and an adequate LMS. Instructors expressed their frustrations and feelings of inadequacy during their initial foray into the online learning environment. Several described the trial and error methodology they used to survive their first year. Not one instructor believed they did a good job of instruction during their first year, describing the amount of revision they made in subsequent online courses to correct their mistakes. RMCC's expectation that instructors adapt and do so quickly created a stressful and chaotic situation for those forced to change.

A Rough Transition

While individual instructors experienced personal change during the transition to online learning, they also participated in an organizational change occurring at RMCC and in higher education. Lewin's (1947) "3-Step" model of change sheds light on how the process occurs. Lewin (1947) identified these steps as (1) unfreezing, (2) moving, and (3) freezing (p. 228). First, group members become involved in the process of "unfreezing" the belief the status quo is the best or only operational mode. Schein (1996) contended "survival anxiety," the feeling that change is required for survival, must occur during the unfreezing phase. Second, the group is "moved" from unacceptable to acceptable behavior. Lewin (1947) characterized this step as requiring repeated attempts or trials of learning the new behaviors. The

final step occurs when new behaviors are "refrozen" preventing regression to old behaviors (Burnes, 2004). Changes to the entire culture of the organization, and how it does business often occur in this phase (Cummings & Huse as cited in Burnes, 2004).

RMCC instructors initially believed the most effective learning environment was the traditional face-to-face classroom. Many felt at-risk students would be unsuccessful in online learning, and some believed their particular classes would not work well online. The administration, faced with unfreezing these beliefs, created survival anxiety in the form of possible job loss. The movement from unacceptable to acceptable behavior was accomplished in a forced and hurried manner. Administration told instructors they must convert their course from face-to-face to online, often in a short amount of time. The trial and error method of teaching reported by instructors correlates with Lewin's (1947) description of repeated attempts to master new behaviors.

The migration to online learning became refrozen as the culture of the institution changed. Each year more courses moved from on the campus to online. At times, a course might be offered in both formats, but as time progressed many of these moved to an online only option. New instructors were hired with the expectation that they would teach online, and new course proposals were expected to reflect an online learning format. RMCC was no longer simply a traditional bricks-and-mortar college; it reinvented itself to survive in a changing educational landscape by embracing online learning.

Extending Lewin's (1947) model, Lippitt et al. (1958) formulated a seven step change process with more emphasis on the change agent. In their model the organization realized the need for help with a problem, often through prompting by the change agent. Next, a relationship between the organization and the change agent was developed. Once that relationship was established, the problem was reevaluated. The fourth and fifth phases involved development of an action plan followed by implementation of the plan. The final two phases of change included maintaining the change, and either ending or redefining the role of the change agent.

Applying the seven step model to RMCC's situation, the State Colleges and Universities in tandem with RMCC administration became change agents through the restructuring of state allocations to institutions. Due to stagnant enrollment, and an aging rural population base, RMCCs funding would be drastically reduced unless enrollment increased. There were two relationships in this instance; one between the state system and the individual institution, and the second between RMCC administration and instructors. Each played a role in the migration to online courses at RMCC. The state system withheld funding unless enrollment increased and the college administration threatened to cancel courses and possibly close campuses, ultimately leading to job loss.

The relationships between change agents and organizations were already established with the change agents being supervisors of the respective organizations. Evaluating the problem came in the form of the state system's realization regarding the distribution of funds. State funds were not being distributed in an appropriate manner and RMCC administrators realized funding would be reduced unless enrollment increased, jobs would be lost.

Both change agents developed an action plan. The state rolled out a new funding formula to more fairly distribute funds based on enrollment. The administration at RMCC realized the only way to increase enrollment was to recruit students not currently enrolled. The combination of an aging rural population, working adults desiring continuing education, and advances in technology, helped RMCC administration decide online education was the best strategy for increasing enrollment. Initially, their plan was implemented through mandated migrations of select courses with no choice or training provided to instructors.

Over time, maintenance of the transition occurred through additional online course offerings, faculty retirements, and new faculty hired specifically for online teaching. The relationship between the state system, RMCC administration and instructors, while initially tenuous, changed as both the state and institution realized the importance of support and training in online education. This caused RMCC

administration to offer opportunities for faculty development both teaching classes on-campus and online.

Moving from institutional change to personal change, Bridges (1986) made a distinction between change and transition, defining change occurring "when something starts or stops, or when something that used to happen in one way starts happening in another" (Bridges, 1986, p. 25). Transition, on the other hand, involved a three-step process people must go through when change occurs (Bridges, 1986). Bridges defined these steps as (1) letting go of the old situation and identity, (2) going through the "neutral zone" between the old and new reality, and (3) making a new beginning (p. 25). Bridges distinguished change and transition by explaining change could be rationally planned and managed, however, transition involved a psychological process people involved with the change must undergo.

RMCC administrators failed to take into account the process needed to impose change in an ethical way. Instructors were forced to convert traditional classes to online under the threat of losing their job. While certainly a motivating factor, the speed at which they were asked to do so, coupled with the lack of training and support provided by the administration negated any possibility of smoothly navigating the change process. Considering Bridges' (1986) model, change at RMCC was achieved by simply stopping one method of teaching and beginning another. Change occurred but the psychological process of transition was largely ignored by administration.

Veteran teachers, whose training and experience all related to traditional pedagogical methods, were not given the opportunity to progress through the steps of transition. RMCC failed to acknowledge the need for instructors to let go of their old identity, as competent bricks-and-mortar classroom instructors. They lacked the training necessary and the time needed to solidify their confidence with a new identity as online instructors. Lacking confidence, they moved into the "neutral zone" in a heightened state of confusion without the proper training to make the change. Although Bridges (1986) characterized the "neutral zone" as a time of confusion, RMCC instructors were in an increased state of

chaos because they did not have the adequate tools necessary to reorient themselves to their new reality. Finally, the new beginning phase of transition was marred by administrators' lack of recognition the transition process required time to develop new competencies. The rush to migrate to online teaching and the lack of support provided by the college made the change process and transition a rough and unsettling time for those involved.

Although the change to online education at RMCC proceeded, and faculty and students survived and even benefited from the move, the process itself was made much more difficult because the college failed to take into account the psychological aspect of change affecting all humans. The sense of loss and incompetence felt by the instructors might have been lessened had the instructors been given the training and time necessary to redefine themselves in their new role. Despite these difficulties, instructors soon learned to adapt face-to-face courses to an online format and online education at RMCC continued to grow. Chapter 5 explores the adaptation process through the insights and experiences of the instructors, students, and tutors.

CHAPTER FIVE

THE REALITIES OF CHANGE AND ONLINE PEDAGOGY

RMCC implemented a transition from face-to-face to online learning in 1999 to increase enrollment and maintain state funding. Although the institution continued to offer courses in traditional campus classrooms and using ITV, administration mandated migration to online learning for many courses and programs with low enrollment. Instructors realized they might lose their jobs unless they converted courses to the online environment, and hastily rebuilt courses with no training or support from the college. While instructors felt unprepared and frustrated, they realized change was needed to survive, and worked through the transition using trial and error learning methods, revising and improving their courses from semester to semester. As the years progressed and online courses became more prevalent at RMCC, the initial uncertainty experienced by instructors gave way to a determination to grow and make the new reality of online learning work for instructors and students.

Philosophical understanding of the differences between face-to-face and online learning replaced concerns about the ability of students, particularly at-risk students, to succeed in an online course. Instructors also identified the needed elements leading to desired learning outcomes. This chapter explores instructor, student, and tutor experiences and insights regarding online education.

Changes: Technology, Aptitude, Support and Attitude

Technology and Aptitude

When RMCC introduced online learning in 1999, computer technology, the Internet, and software programs in higher education were relatively archaic compared to today's standards. Many students living in rural areas around the college did not have access to high speed Internet, making connection to any online information slow and challenging. Unlike today's digital natives, the rural, unconnected nature of RMCC's students combined with their unfamiliarity with technology made a

transition to online education uncomfortable for both educators and students exploring a new way of teaching and learning using technology.

At the outset, faculty worried about the unreliability of rural Internet connections. John recalled most of his students used dial-up connections in 1999, forcing him to simplify his online course so students would not experience technical difficulties. As technology improved, the detail and supporting material John included online became more robust: "[Now] everybody's got a decent Internet connection, and access to decent computers on campus. The syllabus is not very different, but the assignments are." Instructors felt improvements to rural Internet connections allowed them to improve the content of their online courses.

Another concern was students' lack of technical skills and ability to navigate in an online environment. When Linda began teaching online, her students did not know how to save a document or where to find a saved document. Margaret added for her early online students, "uploading things to a drop box seemed foreign." All of the instructors reported gains in student facility with technology as a result of the growth of technology, online learning, and social media sites such as Facebook; today's online students were much more computer savvy. Not only were students exposed to online learning in college, Patricia had a student who previously completed an online course in high school.

Student exposure to technology increased on the campus as well. Fourteen instructors reported using blended learning, a combination of face-to-face and online learning, in their on-ground courses. As students were more exposed to online experiences in day-to-day lives, instructors felt they became more comfortable with online learning.

Three students described their technology experiences prior to taking an online course at RMCC. Both Betty and Sandra completed online courses using the same LMS at other institutions, and were comfortable using the RMCC system. Carol felt her past experience in an introductory computer course helped her navigate her first online course. Two tutors also agreed the prevalence of online learning

made today's students much more tech-savvy. The early concerns of rural connectivity and student technical abilities lessened with time.

One of the initial problems facing the early adopters at RMCC was the homegrown LMS the institution adopted in an effort to save money. Seven instructors identified RMCC's first LMS as a poor online platform. These instructors saw the LMS as a major contributor to successfully or unsuccessfully delivering an online class. The importance of the LMS seemed apparent with John, an instructor at several institutions who judged which courses he attempted to move online based on the capabilities of the institution's LMS. While RMCC forced instructors to move courses regardless of the LMS's ability to accommodate good pedagogy in a subject, John successfully made the argument at other institutions to keep a course face-to-face if the LMS was too limited to support course content.

The move from a poor to robust LMS helped facilitate more effective teaching and learning, allowing instructors like Robert to "refine things and make it better; and the current LMS has refined itself a whole bunch and so I've added a lot to content." As technology continued to improve, additional tools helped faculty do more in online courses. Margaret described her anticipation of a new upgrade: "There's a new tool in the LMS that I'm really excited about. It's audio capture and feedback." The advanced capabilities of the current LMS provided instructors with a wide array of tools for structuring course content, discussion, assessment, and support materials.

In 1999, Palloff and Pratt described considerations for choosing technology to support online learning. They cautioned institutions not to be swayed with software having assorted "bells and whistles" students living in rural areas could not use because of older computers or slow Internet access (p. 63). Students would inevitably encounter technical difficulties because of their unfamiliarity with technology. By 2011, Kear devoted an entire chapter to the wide variety of technological tools available for virtual learning including sophisticated LMSs, blogs, wikis, podcasts and social network sites, tools unavailable to users when RMCC began offering online courses. Since 2002 the number of students

taking one or more online course has tripled (Six Online Learning Trends, 2011). Between 2007 and 2010, the use of dial-up Internet service in the rural areas surrounding RMCC decreased from 21.8% to 8% (as reported in the 2010 State Internet Study). Advances in technology, technical skills, and Internet connectivity have improved dramatically in the last decade. This data reflects the experiences of RMCC instructors and students who saw growth and improvement in online learning skills and technologies.

Campus and System Support

As online instruction evolved, a greater support system was established to assist in course development. The original race to transition to online with no support gradually shifted to provide the training and support instructors new to online learning needed. Nine instructors felt the amount of training and support improved tremendously over the years. RMCC hired a Course Curriculum Designer (CCD) to assist faculty in developing online courses, provide training, and answer questions as they arose. Six faculty members specifically named the CCD's helpfulness as important to their teaching experience. Barbara felt the support provided by the CCD was "excellent" and added "any questions are answered almost immediately." Having a dedicated support person seemed to lessen the amount of anxiety faculty felt when developing new online courses.

In addition to campus support, the State College and University system migrated to a common LMS in 2004. When online learning was implemented by various colleges in 1999, the majority used three LMS vendors and three other colleges, including RMCC, used completely different LMS products. Students attempting to take courses at more than one institution needed to learn how to navigate various LMS platforms. In 2003 when the three major LMS system contracts neared expiration, the State College and University system chose to contract with a single LMS vendor for all colleges in the system. This provided a seamless online environment for students enrolled at more than one institution, and gave the State College and University system the ability to offer faculty training opportunities in online course development with colleagues around the state (as reported by the State College and University

System Office of Instructional Technology, 2006). Between the on-campus support and the training provided by the state system, instructors felt they had access to excellent development opportunities.

Attitude

As technologies and support improved, instructors' attitudes toward online learning changed. Eight instructors who initially doubted their ability to create and deliver an online course, or who believed online learning was inferior to the face-to-face classroom, changed their viewpoint after working in an online environment. Jennifer, who taught at RMCC for 14 years, was very reluctant to transition to online teaching: "I fought this really hard. I really believed mine would be one that it wouldn't work for, and it does." She explained the technology has improved to the point where it "gives me everything I need." Although she still provided opportunities for students to meet with her face-to-face for extra support, she admitted many students do not choose to take advantage of face-to-face support, and still do well in the class. Her original attitude toward online learning changed as she and her students experienced success.

Susan came to RMCC four years ago from a technical field without any teaching experience. She piloted a core online developmental course required of academically disadvantaged students; successful course completion was required before allowing enrollment in higher-level courses. Instructors worried about academically disadvantaged students the most, fearing they would not be successful in online learning. Initially, Susan was wary of online education: "Yeah, I have to be honest, I came into it not really believing in online learning, but I have to say that once I taught, and see the students, I mean, I'm a big believer now." Like Jennifer, Susan cited the advances in technology as a great asset to the online learning environment. She specifically noted additional software in her field as especially beneficial to her online students. As she compared her developmental online students to those in her face-to-face course, she found no difference in the number of successful students from each environment. Her

attitude to online learning changed as she adapted her content to the online class, and her students had just as much success.

The Process of Change

The move from traditional classroom teaching to online instruction was a foreign process to most RMCC instructors. Hall's (1974) Concerns-Based Adoption Model (CBAM) theorized innovation in an educational setting was a highly personal interactive process experienced by individuals at an institution. Hall saw a direct correlation between the degree to which an innovation was used and the level of concern an individual experienced regarding their use of the innovation. Hall created a continuum reflecting these concerns, assessing individual's level of concern (LoC) and level of use (LoU) to measure the experience and progress of people navigating change.

Seven stages of LoC provide a clear picture regarding how individuals experience change.

0. Unaware
1. Awareness
2. Exploration
3. Early Trial
4. Limited Impact
5. Maximum Benefit
6. Renewal (Hall, 1974, p.8)

During LoC 0 (Unaware), the individual is unaware a change will occur. LoC 1 (Awareness) marks the first inkling of a new innovation on the horizon, but no further information is known. LoC 2 (Exploration) entails the individual researching the impact the innovation may have on them. During LoC 3 (Early Trial), the individual worries about the amount of time they spend understanding implementation of the innovation. LoC 4 (Limited Impact) involves the individual assessing how the innovation impacts his/her particular students. During LoC 5 (Maximum Benefit), the individual moves

outside his/her locus of influence and assesses how the innovation impacts the institution as a whole. Lastly, LoC 6 (Renewal) involves the individual experimenting with different methods to improve the outcomes the innovation provides at a personal and institutional level. As an individual progresses through the LoC stages they simultaneously move through corresponding LoU stages.

Hall (1974) theorized the way an individual used an innovation as a developmental process ranging from no use to extremely effective use. The seven LoU stages illustrate this continuum of use.

0. Non-Use
1. Orientation
2. Initial training
3. Mechanical
4. Independent
5. Integrated
6. Renewing (Hall, 1974, p. 17-20)

Beginning with LoU 0 (Non-Use), the individual has no knowledge of the innovation. LoU 1 (Orientation) involves the individual acquiring knowledge of the innovation and how it will impact him/her. Moving to LoU 2 (Initial Training), the individual participates in training on the use of the innovation. Hall described LoU 3 (Mechanical) behavior as an attempt lacking understanding: "The user is engaged in a step-wise attempt to master the tasks required by the innovation, often resulting in disjointed and superficial use" (p. 18). During LoU 4 (Independent), the individual uses the innovation well with his/her own students. LoU 5 (Integrated) sees the individual collaborating with colleagues to provide an institutional impact. The last stage, LoU 6 (Renewing), involves the individual exploring different ways to use the innovation to create better outcomes individually and institutionally. These measures illustrate the complexity of the change process and the individual nature of the response to change.

Hall's (1974) model shows the relationship between LoU and LoC: the user's level of concern may be directly linked to how well he or she uses an innovation. The model was developed as a tool to assist institutions in providing the necessary support needed to move individuals through the change process from novice to expert. As a prescriptive theory, Hall's theory was intended to help institutions facilitate change by listening to the concerns expressed and responding with the correct level of support.

When RMCC implemented online instruction, none of the instructors had pedagogical experience with web-based instruction. Additionally, because of the relative newness of personal computers and the Internet, many instructors were uncomfortable with the technology. As RMCC implemented change and thrust online learning upon the faculty, online instructors had no time to navigate the early stages of LoC and LoU. Additionally, the institution provided no support to faculty members forced to transition their courses to an online environment. Early adopters entered the change process at LoC 3 (Early Trial), spending large amounts of time trying to understand the system and how to move material from one environment to a vastly different online classroom. Similarly, instructors' LoU during their early attempts with online teaching were at LoU 3 (Mechanical), as many of them described the trial and error method they used as they tried to learn the system.

As institutional and system wide support improved through the implementation of a common, more robust LMS, and provided a dedicated CCD to assist individuals with technology and online instructional design, instructors moved to LoU 4 (Independent) and LoC 4 (Limited Impact). This increased level of support addressed instructor's concerns and enabled online faculty members to move forward in adopting online teaching.

CBAM also provides insight regarding the positive change of attitude many instructors experienced. The resistance to moving online, and the mind-set online learning would not work for a particular course, correlates with LoC 3 (Early Trial). Instructors lacking training and support feared they would not be able to teach effectively in an online classroom. As support and training improved,

and instructors became more experienced, their attitude toward online learning improved as their level of concern changed to reflect more student-centered concerns.

Challenges and Opportunities

Creative Pedagogy

The transition to online teaching challenged many instructors due to the rapid rate of implementation, archaic technology, and lack of training and support. Faculty were concerned online learning was inferior to traditional classroom learning, and students, especially those considered at-risk, would not be successful. Although faculty attitudes changed positively as they became involved with online learning, some doubted certain courses could be effectively taught online. Ultimately, the push by administration to move more courses online forced even those who believed their class was not suitable for online learning to transition to the new platform. This created a challenge for those who believed online learning would not work for their particular course. Eight instructors felt courses requiring a lot of hands-on work, such as those found in the trades and hard sciences should not be taught online. Two instructors believed speech courses would not be effective online. Although many courses remained in a traditional format, some faculty members were forced to reevaluate how to make something they thought impossible a reality.

Patricia was told to take an entire technical degree program and transition it to completely online. It was not an option for her to argue which courses would work and which would not, she realized, "we have to find alternate ways to get information out." She faced tremendous challenges when trying to migrate a hands-on medically related course to one in which she had no direct time to sit down with students and show them how to complete a particular skill. Patricia admitted she struggled trying to figure out how to make things work. In spite of those struggles, she described how she adjusted to the challenge by using a webcam to record lecture notes allowing students to "hear my opinions or my views." She also explored the use of web conferencing software to enhance her online courses. Even

with the challenges, she felt she succeeded in converting hands-on courses to online learning, making them viable for students.

Three other instructors used web conferencing software to enhance online courses. Elizabeth used it once a week as an opportunity for students to "dial in and chat with me in person." Jennifer used it to do on-screen demonstrations for those struggling with a concept. Although it was not a mandatory part of the course, she provided individual conferencing as a supplement for those who wanted extra help. Maria described her transition from teaching over ITV, describing ITV as a platform "that didn't lend as well as some of the things we can do in an online environment." Now Maria uses web conferencing to interact with her students for all of her classes. She believed online learning using web conferencing software was a vast improvement over what she presented over ITV:

> As I'm talking and lecturing just as I was doing in ITV, now they're sitting at their computer and they can hear me over voice-over IP, they see it on the screen right in front of them, I can give them a chance to try the command, if they have issues with it where it's not working, I can take control of their computer no matter where they're at but they still have that one-on-one instructor time and it's much more versatile.

In each case, web conferencing software enhanced the asynchronous online environment.

Susan faced a challenge working with academically disadvantaged students in her online developmental course. Realizing her students needed extra help she developed five minute tutorials students accessed to watch her work through problems. Using YouTube to post these tutorials, she recognized the added bonus students had using a social media site familiar to them, and having access to other videos similar in nature. She felt students who did not understand how she explained a certain concept could watch videos from other instructors and "get something similar" presented in a different fashion. Providing instructional videos offered an opportunity online students would not get in a traditional classroom.

Although two instructors felt speech courses were incompatible with online learning, two other instructors who faced the challenge of moving their speech classes online believed it worked very well. Margaret instructed her students to upload their digital speech recordings to an account in Facebook where she and the other students in the class could view and critique them. Dorothy used a different approach, she asked her students to record themselves in front of a group of at least five individuals and mail the taped transcripts to her. She felt the components for preparing a public speech in this exercise mirrored the requirements in a traditional classroom, "they have to create the structure, they have to choose their environment, they have to articulate their message, and deliver it."

How is it possible to do a physical fitness class online? Carol, a student, described the creative approach used by her instructor. Each week she was assigned textbook readings and kept a log detailing what she did to enhance her own body conditioning. She was required to document a minimum of three hours per week of body conditioning and set future goals. The final assignment for the class was a report detailing how she improved from the beginning to the end of the course.

Even science labs, often mentioned as a poor fit for online education, were offered creatively and successfully. David observed a colleague teach a dissection lab in a virtual world: "You would take a fish, and you'd cut it, and then you'd cut it again, and the computer would open up and you would have to label the different parts." After completing this course, students took two other online courses in the program and then completed a certification exam. When compared with students in other programs, David reported "all of them got some of the highest scores recorded in the state."

Returning to Hall's (1974) CBAM stages, instructors' creativity in developing methods for moving courses they believed could not be taught successfully online to the online learning environment, demonstrates a move from LoC 3 (Early Trial) to LoC 4 (Limited Impact). Instructors doubted their ability to create an online version of their traditional course but after working through the Mechanical stage of innovation, and experiencing success, they developed successful teaching

strategies. Their success moved their focus from concerns about their ability to a higher level of concern, shifting to better serving students' learning needs.

Preparation and Delivery

Twelve instructors described the differences they experienced between the development and delivery of an online course and a face-to-face course. All of them agreed organization was much more important in an online course. Robert described setting up the entire course prior to the semester beginning and then "put out fires and answer questions as you go along." William also prepared his entire course prior to it beginning, including all discussion questions, quizzes, tests, and deadlines. He felt online learning was much less flexible than face-to-face, and it was unfair to the student to make changes to course expectations as the semester progressed.

Elizabeth referred to this lack of flexibility as the inability to have a "teachable moment" such as those experienced in on-ground classrooms. Nancy described the inability to "switch on a dime" on-ground but not online as a limitation of online learning. She believed online students needed much more structure, making changes in course content impossible. Nancy made adjustments to her course before the next time by recalling what did not work well the previous time. In her opinion, the purpose of an asynchronous learning environment was the students' ability to work at their own pace. Because students might be at different points in the course at any given time, she felt change would penalize those who had worked ahead.

Lisa also felt it was impossible to make any adjustments once an online course began, "even if something isn't going well, you have to get through it." She described her inability to address problems in understanding by taking more time than planned one week and less in another. She agreed with Nancy regarding the need of online students for more structure and avoided changes to schedule to reduce confusion. Like Nancy, Lisa kept notes for making changes the next time she taught a class, but refused

to make changes once the class began. Lisa believed the flow of online learning "builds much more than face-to-face," and disrupting the flow confused students.

Margaret was the only instructor who did not lay out the entire course at the beginning of the semester. She described her method of rolling out content one week at a time. She held a deep belief in "peer-to-peer" learning, feeling this was "probably the number one benefit of online learning." Students in her course worked together as members of a group.

> I don't see online learning as a correspondence course, where you just put up the information and let people go through at their own pace. I see it as an online learning environment where you come to class, and you're there, and this is the content for the week, and we'll have a conversation about what we're talking about this week.

She believed online learning was a rich classroom environment where one was not an individual simply completing assignments, but was one member of a group conversation where students interact and learn with other members of the class. This shift in understanding illustrates a higher level of use regarding the innovation, moving from LoU 3 (Mechanical) to LoU 4 (Independent), involving a more in-depth understanding regarding how the online environment can match or even exceed opportunities in the face-to-face classroom (Hall, 1974).

Student Participation

Ten instructors described increased levels of student participation and also meaningful discussions as a positive aspect of online learning. Unlike a traditional classroom, where a student may only listen and not participate in discussion, many online instructors required students to post a response in online discussion forums. John felt the "concrete" record of online discussion forced greater participation. He also believed students felt more comfortable online and when they had an opportunity to prepare a response, discussions improved.

Instructors viewed the ability for everyone to have a voice in online discussions, even introverted students, as a positive benefit of online learning. Margaret felt she had much more connection to each student through online discussions. Instead of only a few students speaking up in a traditional classroom, in an online environment, "I get that contact with each person individually." Introverts were much more likely to be engaged and "visible" online. Margaret also viewed the depth of conversation as greater online not only from the student side, but also her responses to student discussion because she had time to think and prepare a thoughtful response.

Although two instructors mentioned initial difficulty with depth of student responses and their understanding of what participation in online discussions actually entailed, both agreed instructor modeling of the expectations for online discussion was sufficient to get students on the right track. Lisa explained the adjustment from traditional learning, requiring students to shift from oral discussions to written responses. Once students see the difference with examples, students understand and the "learning becomes so much more deep because it's student-centered learning."

Palloff and Pratt (1999) discussed the online environment as a space allowing a person to create an electronic personality. They described this as an advantage to introverts because introverts tend to process information internally. Similarly, Meyer (2003) found the online learning environment offered opportunities for deeper, more reflective participation typically found in a face-to-face classroom. The ability to read information in a discussion forum, critically analyze it, and then respond, was seen as a positive aspect of online learning.

Credibility

A common issue often associated with online learning is cheating. Faculty and tutors complained from the outset about monitoring who was actually doing the work and completing the exams. Ten instructors believed cheating was an issue, particularly in online learning. Maria admitted she really did not know if students were cheating. She addressed students at the beginning of the course, explaining

they would find it very difficult to get a job in their field if they did not have the skills she taught. Because she taught in a technical program, she hoped the fear of not being able to get a job would dissuade cheating.

In numbers-based courses where students do problems and could easily have someone else do the work, instructors faced the challenge of assessment. Robert required students to mail problems to him so he would have a physical copy of something with their name on it. He felt frustrated knowing even with a physical copy of an assignment he could never "know with absolute certainty that's them doing the work." Michael agreed cheating was an issue, particularly in a numbers-based course like his. He required students to complete a proctored mid-term and final examination; a passing grade was needed to earn credit for the course. He felt this was an effective measure for dealing with cheating: "This year I only had two that failed because they couldn't pass the exam."

Dorothy hoped the way she structured quizzes lessened the likelihood of cheating. She approached students early in the course appealing to them to use the quizzes as learning tools. She explained the students needed to read the chapter to do well on the "open book" quizzes. Since her course was required of all majors, she often had students who were enrolled but disinterested in the class. She tried to appeal to their sense of ethics, but her frustration showed:

> You know if they're going to sit down with somebody else and just type the answers in, they're not learning anything and they'll pass the class, and they'll go on with life, but it won't improve them at all. Am I the first instructor that said that?

Five instructors believed cheating was a problem, but no more so online than in the traditional classroom. Jennifer knew from past experience in face-to-face learning cheating was possible with any work done outside the classroom. She saw no difference between cheating occurring in either learning environment. Two instructors mentioned plagiarism and purchasing papers as a problem, but concurred it was also a problem on-ground. All five instructors felt cheating was an innate characteristic. Patricia

summed up their feelings, “If you’re a cheater, then you’ll cheat and it doesn’t make much of a difference.”

The challenge of credible online assessment caused instructors to adapt their traditional practices. Instead of multiple choice quizzes, Patricia required more writing to be certain she “heard the student’s voice.” In her lab class, Elizabeth required students to send screen shots of their work. Several instructors used timed tests coupled with the inability to exit the test once started to prevent going out to other sites to look up answers. All of the instructors agreed online assessment had to be different than traditional classroom assessment to be a true measurement of student learning. Karen felt online assessment produced better outcomes in her course because more responsibility was put on the student to critically think about material on their own. Just as instructors faced challenges adapting to online pedagogy, they also faced challenges with credible assessment.

Although there are skeptics who believe cheating may be more of an issue in online learning, Johnson (2003) argued cheating is a problem in any form of education and in fact may be easier to detect in an online environment. She cited the amount of time required to focus in an online course made the prospect of someone else doing the work for the student improbable. Johnson also noted the familiarity students gain of each other through online discussions, the familiarity the professor has with the student through one-on-one interactions, and frequent online activities created an environment where cheating was difficult. Johnson advocated activities to discourage cheating in an online class such as synchronous chat sessions, an introductory email from students outlining their goals, frequent email contact, close monitoring of discussion forums, peer group work, and a clearly outlined cheating policy on the course page.

Palloff and Pratt (1999) contended cheating should not be an issue if a course is “well constructed, is learner-centered, and promotes learner empowerment and self-reflection” (p. 147). They believed students who were empowered learners would be less apt to cheat because they had a stake in

their own learning experience. While this may work well in certain types of courses such as those in the humanities and social sciences, Palloff and Pratt acknowledged in some courses it may be necessary to evaluate using conventional testing methods, suggesting even traditional testing can be accomplished without allowing cheating in an online environment. This included various methods, such as specific courseware designed for online testing, proctoring, use of remote facilities for labs, and videotaping.

RMCC instructors' experiences accurately reflect the literature. Assessment needed to be adapted to an online environment. Instructors acknowledged cheating was not only a problem online but was also an issue in a tradition classroom. They adapted assessment strategies by appealing to the student's sense of ethics and job preparedness, using proctors, additional written assessment, visual assessment using technology such as screenshots, and timed testing using the LMS module. Online assessment created a challenge for instructors but also gave them an opportunity to examine their assessment procedure and devise strategies for improving assessment and assist students in critical thinking skills.

Relationships and Communication

Relationships

Important components of student satisfaction and success in online learning involved building relationships and effective communication. Instructors, students, and tutors (93%) felt relationships between faculty and students, as well as student-to-student interactions, were an important element in an online environment. Because some RMCC students take courses on-campus in addition to online, instructors often had an opportunity to build relationships with students in their online class when they saw them on-campus.

Barbara felt the importance of communicating with students who she sensed were struggling, and appreciated the ability to speak face-to-face with on-campus students. She believed it was easier to help students she saw on campus because she could have an actual conversation with them in her office, and

refer them to the tutors on campus for additional help. Barbara believed it was advantageous to have an online student in a traditional class as well in order to get to know them better. If a student was not on campus, Barbara used email to communicate, but felt it was often difficult to get a response from the student. She sometimes tried to call them if they did not respond to email, but admitted due to her own time constraints she could not always follow through with her efforts to communicate.

Fifteen participants described the importance of face-to-face time, even when teaching in an online course. Two instructors scheduled times during the week to allow students an opportunity to come to campus for one-on-one help. Jennifer explained the majority of her students were independent learners, who did not require face-to-face interaction; however, she felt it was important to provide struggling students with an opportunity to work with her in person.

Michael, who only taught online courses, went to the campus almost every day to meet with students requesting face-to-face help; he realized students who could travel to campus were "lucky" to be able to get the additional help from him. Maria recommended struggling online students come to the campus to meet with her face-to-face as well. In addition, she allowed students who were enrolled in other campus classes to sit-in on her traditional classroom labs.

Susan believed struggling students in an online course did not want to receive assistance online. She felt it was important for them to drive to the campus to get help from her. Susan empathized with students who "just want somebody to talk to. They want that human aspect." She felt she could achieve that best with face-to-face relationships.

Two students found the lack of face-to-face relationships a limitation in online learning. Richard did not believe he would enroll in an online course again. He did poorly in the one online course he took and missed communicating with people face-to-face. Helen felt at times in her online course was isolating, "it got a little tricky and it would have been nice to have somebody that you could have the face-to-face with."

Relationship building was viewed as an important component for a sense of attachment. Patricia felt the students needed "some connection . . . like I'm out there somewhere." Karen viewed the importance of connecting with the students to avoid losing them. She felt students who were detached in an online course, with no sense of relationship, "disappear into the night, you know, just kind of fall off the planet."

Even those who could not create a personal face-to-face relationship believed in the need for a sense of community in the online classroom. Lisa, a student and teacher with online learning experience, felt she really "got to know others in the course through their writing." Students expressed how they felt and they increased their knowledge of particular instructors through communication with them. David felt it important to reach out to students through email to "let them know that one you're watching, and two you care." Karen found it critical, especially at the beginning of a course, to "be watching like crazy and reaching out and intervening." Sharon believed relationships were developed in the online environment through faculty reaching out and making connections to their students. She emphasized this outreach was something "students really, really need."

Two veteran instructors lamented the loss of physical interaction with their students. William wished he could go through difficult passages with students. He felt the loss of not being able to "see the lights come on like I used to." Michael echoed the feeling of loss:

> When you have this difficult concept . . . and the student just doesn't get it and then all of a sudden they do, you know the expression on their face, because they can't hide that, well, I don't get to see that anymore.

He described the additional loss of physical interaction when he wanted to congratulate a student. One student he particularly admired graduated early, and he missed the connection of looking at him face-to-face and "commend him for a job well done."

Finally, Margaret, whose only experience was in an online environment, captured the importance of relationships, particularly between instructor and student: "I believe that the mode of instruction is less important than the ability of the instructor to connect, empathize, assess, and appreciate students."

Building Communities

Lave and Wenger (1991) introduced the term "communities of practice" to describe a group of people knit together through a common practice or interest, who communicate best practices and share information with each other directly. The idea of community has been widely discussed in the field of education as well. The task of building community to foster student engagement and success challenges online instructors.

Palloff and Pratt (1999) described the importance of community in the online class as paramount to student success. Unlike students in a traditional classroom, who have the opportunity to form relationships by seeing each other and physically working together, online students need a facilitator to guide the community-building process. Palloff and Pratt gave the example of a student coming to a physical classroom only to find other students and the instructor absent. The student would not be engaged or continue to return to class. This parallels the experience of an online student who logs-in to the online class day after day without the sense of the instructor or other students participating in the learning process. This student might "become discouraged or feel a sense of abandonment" (Palloff & Pratt, 1999, p. 29). Belonging to a community helps students to become more engaged in their learning and less likely to feel isolated (Kear, 2011). Online peers participate in a learning community, benefiting from interaction with each other, building a level of comfort as a member of the community, supporting each other, and ultimately creating a sense of belonging as one does in a face-to-face community. Students who feel they are part of a community may be less likely to disappear from an online course as others reach out to help them.

Teachers engaged in online learning also form a community of practice. The State College and University's move to a common online platform across all institutions created a community of practice. The common system engaged educators from across the state in online discussion forums and joint faculty development, encouraging sharing of best practices and providing support. Similarly, the CCD provided institutional support, facilitating online faculty development workshops and allowing instructors opportunities to engage in collaboration to increase skills.

Communication

Nineteen participants discussed the key role communication played in the successful outcome of an online learning experience. Four students believed their instructor's communication, or lack of communication, was directly linked to their satisfaction with the online course. Betty felt frustrated when her online instructor did not respond to her email questions in a timely manner. She expected a response the same day a question was asked so she could move forward through an assignment and was unhappy the instructor waited "a day or two" before responding.

Sandra felt the instructor's lack of communication caused her to fail her online course. She complained she had emailed the instructor "like eight times and never once got a reply." Sandra felt upset the instructor did a poor job of posting grades and giving feedback on assignments. She believed not receiving feedback on assignments caused her to lose track of how she was doing. She insisted she would have done better in the course if the instructor had answered her questions. Jennifer, an online instructor and advisor, echoed Sandra's frustration sharing she got the most complaints from students when "they turn in the work and they don't get it back. That to them is a total waste of time because they can't grow as a student if they don't see their corrected work." Conversely, two students described their positive online experience because their instructors were good communicators. Donna felt she had an excellent instructor who got "back to you *right away* if you had a question, or anything, or were looking for help."

Instructors agreed good communication was a key component of online learning and all felt they were effective communicators. Thirteen instructors discussed the role of communication in their dealing with online students. Patricia spoke extensively from an instructor and a student perspective on her experiences with online communication. She recalled an online class she did poorly in because the professor "didn't really answer questions, so that didn't make me that successful because he really wasn't responding." On the other hand, she recalled another online professor who "was very warm, you know her feedback, her emails to the students, I felt like I knew her." Patricia's experience as an online student helped her empathize with her own students need for good communication. She felt there was little difference between on-ground and online communication, explaining when an on-ground student does homework, there is not the opportunity to ask a question and get an immediate response until the next class period. Her practice with online courses was to respond to student questions "at least daily." Responding to students on a daily basis was a practice shared by thirteen instructors.

While daily communication, excluding nights and weekends, was common practice, three instructors felt the need to be much more available to students. Robert described his habit of remaining online until at least 10:00 p.m. and all weekend. He realized many of his students were working adults who did homework in the evenings. He empathized with the frustration they would feel if they could not work through a problem and he was unavailable evenings and weekends to answer their questions. Robert also felt the need to carry a computer with him even when he traveled to avoid any gap in communication with his students.

Nancy described the need to give up some personal freedom in exchange for not being "tethered to the classroom." She believed timely communication was important to the success of her online students, and gave them her cell phone number with the instruction "just call me" if they had a question needing an immediate response. Michael also gave students his phone number and was available during

his own personal time. He explained he sometimes got calls when he was exercising at the YMCA, and "I'll just stop and go off to the side."

Two instructors felt the importance of creating time for synchronous communication. Maria used Adobe Connect, web conferencing software, to work with struggling students during the evening hours. She found it easier and less time consuming than email communication: "I can get accomplished in a half hour what would take three days of email back and forth." Lisa offered online office hours for chat sessions with students. Although she admitted not many students used them, she had a sense her students were more satisfied knowing they had a "synchronous communication opportunity available to them."

Three instructors felt students had unreasonable expectations of timely communication. Robert likened the online environment to having office hours "24/7." When he taught face-to-face, students were "out of luck" when his office door was closed. He believed online students saw the office door as always open, and expected a quick response to their questions.

Email and the LMS discussion forums were the most utilized method of communication. Fourteen instructors used email and discussion forums exclusively when communicating with students. This form of communication could be problematic when students did not respond. John felt frustrated when students ignored the announcements he posted and the emails he sent. He felt he was doing all he could to communicate but "if they're not logging on to receive what you're telling them, or they're just skimming over it, then you're kind of out of luck." William used email communication but admitted "we have a problem with this generation that they don't always read their email," and he was not sure his students got all of his messages. He felt the burden was on the student to read what he posted.

Principles of Good Practice

Chickering and Gamson (1987) developed "Seven Principles for Good Practice in Undergraduate Education" as an evaluation tool for traditional face-to-face courses. These practices are:

1. Encourages student-faculty contact.

2. Encourages cooperation among students.
3. Encourages active learning.
4. Gives prompt feedback.
5. Emphasizes time on task.
6. Communicates high expectations.
7. Respects diverse talents and ways of learning. (p. 2)

The above characteristics have been found to apply to online learning too. However, Bangert's (2008) study of online learning revealed student satisfaction with online learning focused on two central qualities (1) encourages student-faculty contact and (4) gives prompt feedback. Students ranked the instructor's prompt response to questions about course assignments and the amount of faculty-student contact time allocated highest in their evaluations of online courses. Seventy percent of RMCC faculty, students, and tutors confirmed the importance of student-faculty contact and prompt feedback as contributing to success or failure in an online course.

Although Chickering and Gamson's (1987) principles applied to face-to-face learning, they might also be used to evaluate and improve teaching in an online course. Graham et al. (2001) developed an alternate list of best practices based on the original principles, selecting the following elements for online classroom environments:

1. Provide clear guidelines for interaction with students.
2. Well-designed discussion assignments facilitate meaningful cooperation among students.
3. Students should present course projects.
4. Provide two types of feedback: information feedback and acknowledgment feedback.
5. Online courses need deadlines.
6. Challenging tasks, sample cases, and praise for quality work communicate high expectations.
7. Allowing students to choose project topics incorporates diverse views into online courses.

The first practice dealing with clear guidelines for interaction with students was a major concern of RMCC faculty and students. Instructors who did not have clear communication policies struggled with the amount of time they spent answering emails or phone calls during personal time. Students also struggled in courses with no clear policy and were dissatisfied when they felt they did not receive a timely response from the instructor. Instructors who articulated clear policy regarding how to communicate and when to expect a response seemed to feel less overwhelmed with communication issues. Instructors believed their students respected the policy and were more satisfied with their online experience.

Well-designed discussion assignments played an important part in many RMCC online courses. When instructors required student participation in discussion forums, they experienced greater student participation than what they typically encountered in a traditional classroom where they could not monitor participation as easily. Most of the instructors believed discussion in the online environment was more in-depth and allowed more meaningful exchanges because students had time to process a topic and develop an answer. RMCC instructors used online discussions to insert themselves into the discussion, a practice they felt gave them a good connection to the students and helped build relationships.

Only one RMCC instructor mentioned online presentation of student projects. She required students to post their speeches on Facebook for instructor and classmate critique. In their study, Graham et al. (2001) found online presentations inviting class critique were lacking in most online courses. They believed instructors should create ways for asynchronous presentations to build active learning. This type of activity provided students with an opportunity to learn from each other and also create a sense of community, an important component in online learning.

RMCC students and instructors viewed prompt feedback as a critical element in a positive online experience; however, information feedback was the only type mentioned as important. Answering

questions in a timely manner was described by participants as a key factor in a positive online experience, and conversely lack of timely feedback caused a poor experience or failure. Students did not indicate acknowledgement feedback, for example, an instructor letting a student know an assignment was received, as important to them. Graham et al. (2001) believed the lack of eye contact in an online environment made acknowledgement feedback important. Perhaps the advances in online communication since 2001 have minimized the need for acknowledgement feedback. In the early days of email communication checking to see if someone received an email was common practice. The uncertainty and newness of the email environment initially caused some concern regarding whether an electronic message was actually received. In today's online environment, where submitting assignments and communicating electronically is the norm, there appeared to be a lot less of a need for reassurance regarding whether an item was successfully delivered.

RMCC instructors differed in their view on the importance of deadlines. Some felt one of the key advantages of an online course was the flexibility students had when completing assignments and they allowed students to work at their own pace. Graham et al. (2001) correlate deadlines to Chickering and Gamson's (1987) "time on task." In their view, providing deadlines encouraged students to spend time on task so they would not to fall behind.

Although high expectations might be implied by the various strategies RMCC instructors employed to engage students in the online environment, no one expressed specific ways this was accomplished or communicated to students. Instructors also did not mention how they praised quality work. Their changing attitudes toward online education and its ability to replace traditional classrooms as well as comments suggesting they saw no difference between learning outcomes in the online and traditional classroom indicate their expectations appear to be the same for students in either environment.

Incorporating diverse views was accomplished in some courses through the richness of the discussion forums. Although not all courses lend themselves to deep discussion, those doing so reported the discussion forums were an opportunity for students and instructors to express themselves in ways they might not feel comfortable doing in a face-to-face setting. In fact, an online course might create the opportunity for the sharing of more diverse views because of the increased comfort level introverted students felt speaking up in a virtual environment.

Characteristics of a Successful Online Student

Faculty, students, and tutors identified several student characteristics they believed were important to success in an online course. Twenty participants felt time-management skills were necessary because of the lack of face-to-face oversight from an instructor. Patricia believed the process of attending a traditional class forced students to physically interact with the instructor regarding assignments. Elizabeth and Robert felt time-management was even more of an issue for academically disadvantaged students who Elizabeth described as needing "someone reminding them every day" to do their work.

Students agreed time-management was important. Donna was advised prior to registering for an online class of the need to manage her time. She designated specific times each week to work on her online class. Betty, an academically disadvantaged student, felt taking an online class actually "taught me some time-management skills, because I needed to get stuff done." She felt her online experience helped her to grow as an independent learner and successfully completed the course with the grade of "A."

Seventeen participants identified self-direction and self-advocacy as important characteristics of an online learner. Elizabeth believed at-risk students struggled with this. She felt they were "not assertive enough to go out and get the help that they need." Others saw this as a difficulty with any type of passive student. William described the difficulty he had identifying students who were struggling but

not seeking help. Unless he directly contacted them he could not be certain if they were doing poorly because they "were lazy or incapable." Karen referred to passive students as "hoping to learn through the absorption process, being around others" which does not occur in an online class.

Thirteen participants identified commitment and motivation as important. Patricia believed any student; even "not that great of student," who was committed to succeeding could be successful in her online course. Susan felt the developmental students in her course could be divided into two categories, unmotivated and motivated, and agreed the more motivated a student, the greater their chance of success. Richard, a student enrolled in a developmental writing course, was motivated to succeed because the online course was required as a prerequisite to another course he needed in his major. Donna, a nontraditional student, believed as an older student she was more motivated than some younger students who she described as "just filling time." She felt her motivation made a "big difference" in her successful completion of the course.

Seven instructors believed writing skills were imperative for an online learner. Nancy explained her online course was "writing intensive" because what would normally be discussion in a traditional classroom "translates into writing" in the online environment. Students needed to be strong writers to communicate. Four instructors also felt reading was important because so much of online learning was textual.

Finally, ten instructors and one tutor believed the same skills were needed to be a successful student in both traditional and online courses. "I don't see that there's a huge difference between online classes and on-campus classes as far as attributes that lead to their success or the opposite" (Linda). David stressed the onus of a student's success or failure in either learning environment fell on the instructor's ability to structure a course supportive of student learning style. He saw no difference aside from the addition of technology.

Described previously in the review of the literature (see Chapter 2), certain characteristics associated with online students predict their success:

- high literacy levels (Mannan, 2003; Menager-Beeley, 2001; Phipps & Merisotis, 1999);
- self-discipline and self-direction (Bell, 2007; Hardy & Boaz as cited in Roblyer & Marshall, 2002; Mannan, 2003; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002; Williams and Hellman, 2004);
- computer technology competence (Al-Khaldi & Al-Jabri, 1998; Bell, 2007; Hill & Hannafin, 1997; Kim-Rupnow et al., 2001; Joo, Bong, & Choi as cited in Williams & Hellman, 2004; Limbach et al., 1997; Mannan, 2003; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002; Rude in Cook & Grant-Davie, 2005; "Understand Online," 2001; Wisehart & Blease, 1999);
- internal locus of control (Bell, 2007; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002; "Understand Online," 2001; Wang & Newlin as cited in Roblyer & Marshall, 2002);
- ability to learn independently (Bullen, 1998; Jonassen et al., 1999; Laffey et al., 1998; Mannan, 2003; Naidu, 1997; Osborn, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002);
- persistence when approaching something new (Osborn, 2001; Phipps & Merisotis, 1999);
- rating the consequences of failing the class as important (Menager-Beeley, 2001; Phipps & Merisotis, 1999; Roblyer & Marshall, 2002);
- willingness to take a risk (Roblyer & Marshall, 2002); and
- having some prior knowledge of the course subject (Coussement as cited in Roblyer & Marshall, 2002; Hill & Hannafin, 1997; Limbach, Weges, & Valcke, 1997; Osborn, 2001; Wishart & Blease, 1999).

RMCC instructors regarded time management skills, self-direction, self-advocacy, commitment, motivation, and literacy as important factors in student success, confirming many of the characteristics identified in the literature regarding successful online learners. While some felt academically disadvantaged students lacked these characteristics, three of the five academically disadvantaged students in this study passed their online courses with either the grade of an "A" or "B". In fact, one academically disadvantaged student who experienced success in her online course felt it helped her attain better time management skills. This may show the potential for an online course to help some academically disadvantaged students grow.

Johnson (2003) emphasized the importance of certain skills such as motivation, the ability to work independently, and computer technology competence for an online learner, however she concluded, "this is not to say that students who do not possess these characteristics cannot develop them" (p. 137). Many of the characteristics, viewed as positive for online learning, appear to be important in face-to-face learning. The majority of RMCC instructors and tutors felt successful students in either environment needed to possess the same skills. Just as it is important for instructors to be cognizant of differing learning styles and personality traits in the traditional face-to-face classroom, the same qualities of effective teaching appear important in the online environment. Instructors who adapt and model Chickering and Gamson's (1987) principles have the capability of connecting with students who lack some of these skills to facilitate their success in online learning. While the online learning environment poses challenges, instructors found success in meeting student needs by providing effective instruction using new technologies and also emphasizing effective communication and relationships within an online community.

Chapters 4 and 5 explored the change journey experienced by individuals at an institution migrating from traditional classrooms to online learning. Due to declining enrollment and decreased state funding, RMCC faced the need for institutional change to preserve jobs and keep campuses open.

RMCC administrators believed online learning would generate increased enrollment and revenue. The administrators forced instructors to move traditional courses to an online platform quickly and with no access to training or support. Instructors were not allowed to move through the change process smoothly and felt inadequate in their early teaching attempts. As online courses continued to increase, RMCC and the State College and University system realized instructors needed further support to maximize learning for online students. The support, development, and experience faculty members gained increased their confidence enabling better online practices and student outcomes. Instructors realized the benefits and opportunities online learning provided to students, and used creative pedagogy to successfully transition courses initially deemed unsuitable for an online environment. Instructors' initial concerns many students, particularly academically disadvantaged students, could not be successful in an online class lessened as they developed methods of support facilitating student success. The final chapter summarizes these findings, their implications, and provides recommendations for future research.

CHAPTER SIX

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Summary of Findings

This phenomenological case study explored the process of change at a rural two-year college migrating from traditional face-to-face instruction to an online learning environment. Instructors were concerned about the move to online learning due to the large percentage of academically disadvantaged students enrolled at the institution. They argued online learning would be detrimental to the retention of at-risk students. However, college administration, faced with loss of state funding, implemented online learning as a way to increase enrollment. Administration approached this change by pressuring instructors to migrate current face-to-face courses to an online format or risk losing their jobs. Instructors were forced to change rapidly and adapt to an unsophisticated LMS with little or no training or support provided by the institution.

Although the change process proved difficult for instructors, they realized it was necessary to survive, and eventually recognized the advantages and opportunities online learning provided to students. Online learning provided access to education for students who might not otherwise have the opportunity to learn due to their work schedule or location. The institution realized increased enrollment through online learning by attracting students from various states across the country in addition to working adults wanting to advance their careers within the region.

Instructors faced considerable challenges in their initial teaching efforts due to inexperience coupled with the lack of institutional training and support. They described the frustrations and inadequacies experienced as they tried to reconstruct traditional classes in an online format using a trial and error method and significantly revising courses from semester to semester. Competent and experienced on-ground instructors felt they did a very poor job with their first attempts at online instruction. Faculty experienced change on an individual basis moving from LoC 3 (Early Trial) and

LoU 3 (Mechanical). Early adopters did not experience the early stages of CBAM including LoC 1 (Awareness) and LoU 1 (Orientation) due to the rapid rate of transition to online learning (Hall, 1974).

As online courses continued to increase, a number of factors combined to improve the learning experiences of online students and instructors. The State College and University system and RMCC realized the importance of providing support and training to instructors involved with online learning and faculty development became a priority. Rural Internet connections, computer technology, and instructor/student technological aptitude improved significantly. Instructors' attitudes toward online learning shifted from negative to positive as infrastructure, support, experience, and success increased.

Instructors moved from concern with their ability to teach in an online environment to concern for student learning and subsequently adopted new pedagogical strategies to increase student success. Because the transition was mandatory, even courses many thought would not be successful as an online course were creatively adapted to the online environment. In addition to the LMS, instructors used tools such as webcams, web conferencing software, YouTube tutorials, and Facebook to interact with students in a virtual environment, adapting creatively to the challenges of online learning.

Besides change in course delivery techniques, instructors reported considerable change in their method of preparation and flexibility in the online environment. Instead of preparing and adjusting throughout the course of a semester, a common practice in face-to-face classes, instructors prepared the entire course in advance and followed the syllabus exactly, limiting their ability to alter instruction when students struggled. This structure allowed students to work at their own pace, an often cited advantage of online learning. However, the need for structure also necessitated the adoption of a rigid course schedule with no deviation, a limitation in providing a responsive curriculum to students.

Instructors noted some benefits to online learning and teaching. They described increased levels of student participation and more meaningful discussions in the online learning environment. The typically "introverted" student seemed more at ease participating in a virtual environment. Assessment

and evaluation of student performance based on their participation in discussion forums encouraged students, who might otherwise simply listen to discussion in a face-to-face course, to become involved in the online discussion forum. While participation rates were noted as a positive benefit of online learning, concern about cheating dampened some enthusiasm for online learning.

Faculty members addressed cheating, an issue often associated with the online learning environment, in a number of ways. Just as course delivery and pedagogical practices changed for the online environment, faculty made adjustments to assessment to thwart cheating and maintain credibility for their online course. Although initially faculty felt more concerned about cheating in the online environment, eventually their concerns lessened as old assessment methods were retooled. This included the use of proctored exams, extensive written work, screen shots, timed tests, and appealing to the student's sense of ethics. Some faculty believed cheating was an inherent characteristic and reported it was an equal problem in both the online and face-to-face environment.

Two major components surfaced as extremely important to student satisfaction and success in an online course: relationships and communication. Instructors adopted various means for developing relationships, including face-to-face meetings, synchronous online communication, email, discussion forums, and phone conversations. Participants felt building relationships led to a sense of community. Equally important to students was the need for timely communication. Faculty wrestled with finding balance between not enough and too much communication, as well as the meaning of "timely." While email and LMS discussions were the most utilized form of communication, there appeared to be a sense that students did not always connect with faculty in this format, causing instructors to express continued concern about relationships in online learning.

Finally, participants felt certain characteristics were necessary in the online learning environment including, time-management, self-direction, self-advocacy, commitment, motivation, and literacy skills. Although initially faculty felt academically disadvantaged students lacked these skills, and were

concerned this would cause them to be unsuccessful, many realized the same skills were necessary for any student's success, including those in traditional face-to-face classrooms. Academically disadvantaged students responded to the challenge of online learning by focusing on time-management and their personal motivations for taking the online courses. Ultimately, three of the five academically disadvantaged students in this study passed their online courses with either the grade of an "A" or "B."

Implications

Change

Change is endemic in higher education. As advances in technology race forward at dizzying rates and societal lifestyle and human needs change just as quickly, higher education institutions must understand how to stay abreast of technological change and also support the human adaption to change. The change implemented at RMCC, from traditional face-to-face classrooms to the online learning environment, was needed not only to increase enrollment allowing the institution to survive but also to reflect the changing human needs for flexible educational opportunities traversing distance and time.

Although it is imperative education meet new societal demands, the manner in which change took place at RMCC was fraught with administrative error. RMCC administration failed to take into account the progressive individual nature of change, the human costs associated with change, and the support needed to facilitate the transition to online learning.

Numerous change theories exist, many easily applied to the educational change process. Lewin (1947) identified three steps of change, (1) unfreezing unacceptable behaviors, (2) moving behaviors from unacceptable to acceptable, and (3) refreezing acceptable behaviors (p. 228). Bridges (1986) defined the steps of change as (1) letting go of the old situation and identity, (2) going through the "neutral zone" between the old and new reality, and (3) making a new beginning (p. 25). Hall's (1974) CBAM model of change included seven stages of concern and seven stages of use of a new innovation. The common denominator in these change theories is the progressive steps involved leading to

successful change. Each theory describes change as a progressive and individual process. While they differ in the number of steps or exactly what the steps entail, they suggest change is a personal process needing support and patience. RMCC implemented change rapidly, failing to adequately support instructors, and causing a rough and unsettling transition from face-to-face instruction to the online environment.

The State College and University system recognized educational change was necessary due to an aging population base, student demand for flexible educational opportunities, and stagnate enrollment in rural colleges. Their new model for allocating state funding was introduced in 1996 and not set to begin until 1999 with a four year phase-in period. RMCC had a full three years prior to any change in funding: this allowed RMCC ample time to strategically assess how to ethically implement a major change in educational delivery. The rapid, externally-mandated change initially caused students to experience poor instruction and the instructors to feel overwhelmed and inadequate due to lack of institutional training and support. If RMCC began the change process in 1996, allowing instructors to experience early phases of change, particularly LoU 0 (Non use) and LoU 1 (Orientation; Hall, 1974), instructors may have had the opportunity to gather information regarding online learning and be better prepared in 1999 to implement changes in their courses.

RMCC utilized a cumbersome “home-grown” LMS, a platform faculty and students found difficult to learn and use, to save money. The adaptation period caused considerable stress and wasted effort. Veteran instructors were forced outside of their comfort zone, and thrust into online teaching with no training or support from the institution. As is common in much educational change, the move from traditional learning to an online environment was a top-down driven approach using administrative pressure to force change (Glickman, Gordon, & Ross-Gordon, 2010). Not allowing instructors to individually move through the steps of change with the direction and support required caused feelings of inadequacy, making their teaching efforts less than successful.

Glickman et al. (2010) recognized the unease teachers feel moving outside of their comfort zone. Expert teachers asked to do something new, in this case online learning, can no longer rely on the pedagogical training and strategies affording them success in the past. Knowledgeable change leaders recognize the need to involve instructors during the early conversations and decisions related to change impacting them. Serving as a conduit of support during change, competent leaders offer a safe environment for practicing and improving their new skills (Glickman et al, 2010).

Some aspects of online instruction differ significantly from face-to-face instruction. These include course content development and delivery, discussion forums, student support, and assessment. Instructors must understand the necessary variables affecting student learning in online instruction and experience proper training and support as needed. Faculty members new to online teaching need proper training to master the platform, convert "traditional" content to an online environment, and also take advantage of opportunities available in the online environment. According to Pankowski (2004), "Experts agree that faculty need training to teach online, yet a survey of faculty who teach undergraduate mathematics courses online indicates that most faculty at two-year colleges are still not receiving adequate training" (para. 1). RMCC improved its support for online learning, however, many institutions may still lack adequate training and support for online teaching and learning. Quick to experience a financial bonus from increased enrollment and often reduced costs, many institutions, like RMCC during the early days, may fail to make the human and capital investment needed to guarantee quality instruction for all students, including academically disadvantaged students.

This study indicated RMCC instructors creating new online courses received little, if any, training or institutional support from the introduction of online learning in 1999 to 2007. Although the transition to online learning occurred and the institution survived, the process was chaotic and stressful for those involved. The belated addition of a CCD to assist faculty in course development, facilitated a positive change in faculty attitude toward online learning and enabled movement from LoC 3 (Early

Trial), focusing on manipulating the innovation, to LoC 4 (Limited Impact), focusing on the innovation and its impact on student learning (Hall, 1974). Although this is a positive shift, there was no evidence RMCC instructors had reached LoC 5 (Maximum Benefit) of LoC 6 (Renewal), stages focusing on the impact to student learning at the institutional level (Hall, 1974).

Institutions considering similar major educational shifts might learn from the leadership errors involving the change from traditional learning to online learning at RMCC. The disequilibrium experienced at an individual level affected students and the institution as a whole, creating unease and less than desirable learning conditions for the early adopters and users of online pedagogy. If faculty involvement and individual training and support had been in place prior to the change to online learning at RMCC, the institution and its instructors may have experienced higher rates of successful adoption and even instances of innovation in online pedagogy. Most instructors clung to a less flexible approach to teaching, refusing to adapt while the course was "in motion" to avoid confusion or frustration.

While the added structure represents gains in professional knowledge, it also represents a "stuck point" in practice. Only one instructor claimed to modify the course during the semester, while most waited until the course was offered again to adapt. This rigidity illustrates the need for greater support and professional development in online learning needed beyond the initial adoption stage.

Online Pedagogical Practices

Participants differed in their opinions concerning courses compatible with the online learning environment. In general they felt courses with a hands-on component such as science labs, trade programs, and physical education would not be successful in an online format. Additionally, oral communication courses were singled out as unfeasible for online learning. Although there was doubt, the push for online education at RMCC forced instructors to rethink the impossible and make it possible.

Instructors successfully migrated entire programs at RMCC including Accounting, Administrative Assistant, Computer Networking, Emergency Medical Technician, Medical

Administrative Secretary, Nursing, and Windsmith to the online environment. Additionally, courses such as Biology (including labs), Introduction to Microcomputers, American Sign Language, Physical Fitness, and Speech were successfully taught using online learning. Because of the need to transition even courses thought incompatible with a virtual environment, instructors created strategies to deliver course content in an online format. Discussions with instructors revealed those who had not experienced teaching their course in an online environment were skeptical, but those who had made the transition became firm believers in the quality of their online courses. In some cases instructors felt the quality of the online course was better than the face-to-face or ITV courses previously taught due to increased student participation, a versatile learning platform, and virtual interactivity with web-based resources.

Transitioning a course from a traditional face-to-face format to an online environment involves much more than simply moving what was typically done in the face-to-face classroom to the LMS (Fish & Wickersham, 2009). Instructors must create a sense of community within the virtual learning environment so online students feel a sense of belonging, something much more difficult to accomplish without face-to-face interaction. Despite the lack of training and support provided, RMCC instructors developed methods to achieve learning outcomes and interact successfully with students in creative ways, including web-conferencing, webcams, online tutorials, and Facebook postings.

Although Chickering and Gameson's (1987) seven principles were developed to evaluate face-to-face instruction, instructors might also use them in evaluating the pedagogical practices they employ online as well. Students at RMCC expressed two key aspects relating to their success and satisfaction with online learning: timely communication and relationships. These aspects manifest themselves in two of the seven principles as well: (1) encourages student-faculty contact and (4) gives prompt feedback.

Zhang and Walls (2006) reported of the seven principles, online instructors reported they implemented only five of them frequently. The two principles they implemented least were (1) encourages student-faculty contact and (3) encourages cooperation among students. The concept of

encouraging cooperation among students appears to be an important idea in building a learning community. If a student does not feel engaged with the instructor or other members of the online class, he/she might be more inclined to drop out of the course (Palloff & Pratt, 1999). Only one RMCC instructor reported the use of a cooperative student learning environment, allowing students to critique one another's work on Facebook. Finding ways to create cooperative student learning environments in online learning may be more difficult than in the traditional classroom; however, this serves as an important practice for establishing community and promoting student learning.

Encouraging student-faculty contact and providing prompt feedback may be seen as interrelated. Feedback is one dimension of student-faculty contact. As stated earlier, these two concepts stood out as most influential in students' success and satisfaction with an online course. Unfortunately, many instructors found the extra time needed to communicate and provide timely feedback compromised their personal time. A balance between student-faculty contact, the expectation of "timely" feedback, and an individual's nonprofessional time must be carefully scrutinized. Just as students might not appreciate their supervisor or instructor contacting them 24/7, instructors need personal time away from their work. The RMCC instructors who set clear guidelines for communication expectations reported feeling less stress and believed their students were satisfied by the amount and promptness of the contact they received. Most recognized the importance of making themselves available at times deemed as nontraditional (nights or weekends) to allow working students to contact them. Instructors provided communication guidelines and alternative "office" hours to foster student-instructor interaction and provide timely feedback. Adjustments to online learning require flexibility and often a change in thinking about ways to be accessible to students.

Finally, there appeared to be some inequity at RMCC for students unable to travel to campus for face-to-face help. Similar to the notion of unfairness in providing learning accommodations for learners without a documented disability, online students without the ability to take advantage of face-to-face

assistance from their instructor seem to be at a disadvantage compared to those who can. As instructors have found ways to effectively transform course content, discussion, and assessment from the face-to-face classroom to the online environment, so too should they approach assistance to students. Considering ways to successfully provide virtual assistance to all students will encourage instructor development of more effective communication methods, instead of relying on traditional face-to-face meetings for remediation or individual coaching sessions.

Online Student Characteristics

In fall 2006, eighty-nine percent of RMCC's first time, full-time students were classified as academically disadvantaged or at risk for failure. Faculty and tutors were extremely concerned regarding how the move to online learning may cause academically disadvantaged students to fail. Indeed, several characteristics deemed important in online learning surfaced in this study including time-management skills, self-direction, self-advocacy, motivation and literacy. However, many participants identified these same skills as important for success in a traditional classroom and eventually concluded these challenges appear in both environments and must be considered in working with academically disadvantaged students.

During the earlier years of online learning at RMCC, heated debate took place regarding the feasibility of "developmental" courses, composed exclusively of academically disadvantaged students, moving to an online environment. Similar to the debate regarding courses like Speech, science labs, and Physical Fitness working online, eventually, administration insisted "developmental" courses in reading and math should move to the online environment. Susan, the sole "developmental" instructor participating in this study, reported employing creative methods to provide extra help to academically disadvantaged students through the implementation of YouTube videos. She found no difference in the number of successful academically disadvantaged students in her online course as compared to her traditional face-to-face course.

The sweeping generalization, claiming all academically disadvantaged students lack characteristics such as time-management skills, self-direction, and self-advocacy, should be avoided. Instructors may recognize this as a general problem experienced by some students in their courses. Similar to the initial negative attitudes instructors held regarding the integrity of online learning or the perception certain courses could not be successfully taught in an online environment, the notion predicting failure of academically disadvantaged students in online learning seems misguided. A shift in focus from category of learner, such as "academically disadvantaged," to student characteristic, such as "unmotivated or unskilled" allows the instructor *in any educational environment* to center on individual student needs, devising strategies to address and ensure learner success.

As discussed earlier, while certain skills enhance success in an online environment, students not possessing these skills can develop them. Grow (as cited in Stavredes, 2011) provided a four-stage model outlining the stages of learning from a dependent learner to a self-directed learner. Starting with stage one, the dependent learner may be characterized as the unmotivated student with no sense of direction or notion of what the course subject matter encompasses. A dependent learner in an online environment requires detailed instructions, rigidly set deadlines, and frequent feedback informing them of how they are doing. In stage two, interested learners want to learn, however they lack confidence in their own abilities. Stage two online learners need an instructor who knows how to build confidence and assure students find some success in their initial attempts at learning. Involved learners in stage three appear confident, motivated, and have some knowledge of the course subject matter. These learners thrive on choices allowing them to explore topics of interest to them. They enjoy rich discussion forums where they can share personal experiences. During stage four, self-directed learners take responsibility for their learning. They possess desirable characteristics like time-management and also set their own goals. Online instructors should provide enough flexibility to enhance critical thinking skills, while still being available to answer questions.

All educators in the face-to-face or online classrooms will encounter students with a variety of learning styles and characteristics. It is the job of the instructor to assess the skills individual students bring to the learning environment and adapt their instruction to meet their needs. Changes in course content, communication, relationships, and assessment may be successfully converted to an online environment. Adaptations in teaching style aimed at addressing the needs of the individual learner can also be made.

Recommendations for Future Research

The purpose of this study was to explore the experiences of instructors changing from traditional face-to-face instruction to an online learning environment. I also explored the concerns instructors felt regarding successful implementation of online learning with a diverse student body, including a large population of academically disadvantaged students. Finally, I sought to understand the academically disadvantaged student experience enrolled in an online course for the first time.

Because only five academically disadvantaged students were recruited for this study, further research might include a larger number of academically disadvantaged participants. Instructors seemed particularly anxious regarding the success of academically disadvantaged students in online learning, while recognizing the challenges of meeting their needs in any environment. More studies regarding the specific instructional strategies needed to improve their success would prove valuable to the recurring concern expressed by teachers in online environments and also face-to-face classrooms.

Future research might also focus on the process of change, particularly as it affects experienced faculty members asked to move from traditional pedagogy to e-pedagogy. How might administrative leaders better support instructors moving into an e-learning environment with no prior training? Exploring the experiences of instructors at other institutions making this migration may be helpful in defining best practices.

Finally, as online education continues to grow, teacher preparation programs may examine preparation of future teachers with regard to online learning environments. A study of existing teacher education programs at various institutions may shed insight into the strength or weakness of teacher preparation for e-pedagogy. Will future teachers be more prepared to meet the needs of the 21st century student in the ever-expanding world of virtual learning? Based on my findings, institutions in K-12 and higher education may benefit from studies of successful adoption and change to e-pedagogy and online learning.

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APPENDIX A

IRB USE ONLY: APPLICATION # _____ DATE RECEIVED: _____ DATE APPROVED: _____

APPLICATION
FOR APPROVAL TO CONDUCT RESEARCH INVOLVING HUMAN SUBJECTS

TYPE OF REVIEW REQUESTED *(REFER TO APPENDIX FOR DEFINITIONS)*:

[X] ***EXPEDITED REVIEW*** *(SUBMIT 4 COPIES)*
IF EXPEDITED, INDICATE RESEARCH CATEGORY [___]
COMPLETE ITEMS 1-13 AND SIGNATURE PAGE

[ ] ***FULL BOARD REVIEW*** *(SUBMIT 12 COPIES)*
COMPLETE ALL ITEMS AND SIGNATURE PAGE

UST INSTITUTIONAL REVIEW BOARD

Submit application with abstract, consent form, and other required documentation, to:
IRB Office, Mail: #5037, 2115 Summit Ave., St. Paul, MN 55105

Will this research last more than 1 year [X] Yes [ ] No

1. **Project Title:** Online Learning and the Academically Disadvantaged Student

2. Project Period (from data collection to project completion): March 2009 through October 2010

3. Name of **Principal Investigator:** Christine L. Schafer
   University Department: Educational Leadership
   Primary Mailing Address: 2317 S. 5th Ave., Sioux Falls, SD 57105
   Telephone: 605/376-2970
   E-mail: clschafer@stthomas.edu

4. **Mark the appropriate category:**

   [ ] Faculty or Staff Research

   [ ] Undergraduate Student Research

   [X]Graduate Student Research

   [ ] Classroom Protocol

   [ ] Other (specify):

5. **If student research, identify ADVISOR:**

   Name**:** Dr. Sarah Noonan

   Department: Leadership, Policy and Administration

   Mailing Address:1000 LaSalle Ave., Minneapolis, MN 55403

   Telephone: 651/962-4897

   Email: sjnoonan@stthomas.edu

6. **Is this research subject to any other type of review? [X] Y**es **[ ] N**o

   If **YES, specify:** [ ] Thesis committee [ ] Grant agency [ ] Project site [ ] Other IRB

   [X] Other: Dissertation committee

7. **Anticipated Subject Population** (Number, gender distribution, age range, etc.)

   a. **Number** of Males**:** 10

      Females**:** 10

      Total Human Subjects: 20

   b. **Age Range**: Youngest subject [18] Oldest subject [50+]

   c. **Location** of Subjects: (Check all that apply)

      [ ] University of St. Thomas campus

      [ ] Elementary/Secondary school

      [ ] Hospital

      [ ] Clinic

      [ ] Long Term Care Facility

      [ ] Prison/Halfway house

      [X] Other Special Institution (Specify)**: Community and Technical College**

      [ ] None of the above (Describe location of subjects):

      NOTE: If subjects are recruited or research is conducted through **an agency or institution other than UST, submit written documentation of approval and/or cooperation.**

   d. **Special Characteristics:**

      [ ] Normal Adult Volunteers **[ ] P**atient Controls

      [X] Students **[ ] I**npatients

      [ ] Outpatients

   e. **Special Populations:**

      NOTE: *These groups require special consideration by federal regulatory agencies and by the IRB.* ***In the lay summary, provide rationale for focusing on special populations.***

If women and minorities are to be excluded from the study, a clear rationale for their exclusion should be provided in the abstract / lay summary.

[ ] Minors (under age 18) - volunteers **[ ] H**IV/AIDS patients

[ ] Minors -- patients **[ ] E**conomically disadvantaged

[ ] UST Employees **[ ] E**ducationally disadvantaged

[ ] Pregnant women **[ ] P**risoners

[ ] Elderly/aged persons **[ ] C**ognitively impaired persons

[ ] Minority group(s) and non-English speakers (specify and provide rationale in abstract)

[ ] Other Special Characteristics and Special Populations (specify _____ and provide rationale in abstract)

8. **Abstract/Lay Summary** (*Use language that can be understood by a person unfamiliar with the area of research.)*

Briefly describe the research (maximum length: 2 pages).

Purpose: The purpose of the research is to understand the experiences of academically disadvantaged students at a rural community and technical college who are enrolled in their first online class.

Methods: The college's Director of Institutional Research will email students identified as first time online learners, who are 18 years of age or older, a letter of invitation outlining the purpose and structure of the study. The study will be conducted on a purely voluntary basis. Students will respond with their willingness to participate directly to the college's Director of Institutional Research.

The names and contact information of those indicating a willingness to participate in the study will be forwarded to the researcher. Each student volunteer will be emailed a survey to complete no later than the first week of the semester. The survey will include the following question designed to assist students in self-identification of their status as potentially academically disadvantaged students:

I consider myself an at-risk learner, defined here as someone who may experience difficulty in learning due to my previous experience or performance in completing academic work or taking standardized achievement tests: _____ Yes _____ No

If yes, I consider myself as an at-risk learner because of (Please check all that apply):
_____ my confidence level _____ my Accuplacer or other placement test scores
_____ my grade point average _____ my writing skills
_____ my reading skills _____ my *documented* disability
_____ other

Both those chosen for the sample and those eliminated will be emailed a formal letter thanking them for their willingness to participate and indicating whether they will be contacted for a follow-up interview upon completion or withdrawal from the course. The researcher will conduct either a face-to-face or telephone interview, based on the study participant's preference and/or availability, after the student either withdraws from or completes the course. Those completing the course will not be interviewed until after final grades are posted.

Serendipitous informal data will also be gathered through notation of observations and informal conversations with faculty and staff who deal with online students on a regular basis.

Tasks: Participants will be asked to complete a short survey via email. A selected group from those completing the survey will be further asked to participate in a face-to-face or telephone interview. All interviews will be audio-taped.

Target Group: This group has been targeted because of the growing number of online courses being offered in higher education, and because of the large amount of academically disadvantaged students enrolled at two year colleges.

9. **Recruitment of Subjects** (Attach copies of advertisements, recruitment letters, etc.)

Potential subjects will be identified by the college registrar and forwarded directly to the college's Director of Institutional Research. The Director of Institutional Research will contact potential subjects via email outlining the scope of the research and asking if they would be willing to volunteer to participate in the study.
Students will respond with their willingness to participate directly to the college's Director of Institutional Research.
The names and contact information of those indicating a willingness to participate in the study will be forwarded to the researcher. Each student volunteer will be emailed a survey to complete no later than the first week of the semester.
Only those students indicating on their completed survey that they feel they are at-risk due to either their grade point average or placement test scores will be used in the final sample group. Those students indicating they have a documented disability will be eliminated from the study. Both those chosen for the sample and those eliminated will be emailed a formal letter thanking them for their willingness to participate and indicating whether they will be contacted for a follow-up interview upon completion or withdrawal from the course.

c. Will the subjects receive inducements before, or rewards after the study?
[ ] **Yes** [X] **No**
If yes, explain. Include this information in your consent form.

d. What is the nature of the relationship between the researcher and any cooperating agency or organization? Employee.

e. What is the nature of the relationship between the researcher and the potential participant? I am an administrator at the college where participants are enrolled.

10. **Confidentiality of Data**

a. Describe provisions made to maintain confidentiality of data. Where will the data be kept and for how long? What security provisions for the data will be used? If tape recordings or videotapes are created, explain who will have access and how long the tapes will be retained. The consent form should include this information, also.

Any physical data such as printed interview transcripts, signed consent forms, printed surveys, and notes related to the research will be secured in a locked filing cabinet in my office. Taped transcripts will be transcribed by myself when I am alone in the privacy of my office, and will be erased once transcribed. All email correspondence, electronic surveys, and electronic documents related to the research will be secured on my password protected personal computer. I will be the only person with access to the data. All data will be destroyed once my dissertation is successfully defended, approximately October 2010.

b. Will data identifying the subjects be available to anyone other than the principal investigator, e.g. school officials, etc.?
[ ] **Yes** (explain who and why below and in the consent form) [X] **No**

c. Will the data be recorded in any permanent record, such as a medical chart or student file?
[ ] **Yes** (explain below and in the consent form) [X] **No**

11. **Risks to Participants**

Does the research involve (Mark an "X" before each appropriate description):

[ ] **u**se of private records (medical or educational)

[ ] **p**ossible invasion of privacy of subject or family

[ ] **m**anipulation of psychological or social variables such as sensory deprivation, social isolation, psychological stresses;

[ ] **a**ny probing for personal or sensitive information in surveys or interviews;

[ ] **u**se of deception as part of experimental protocol;

[ ] **o**ther risks

Describe the precautions taken to minimize risks. <u>If the research involves use of deception as part of the experimental protocol,</u> that protocol must include a "debriefing procedure" which will be followed upon completion of the study or subjects' withdrawal from the study. Provide this protocol for IRB review.

Be sure to list any risks and precautions to minimize risks on the consent form.

12. **Benefits to Participation**

List any anticipated direct benefits to participation in this research project. If none, state that fact here and in the consent form.
There are no direct benefits to the participant.

13. **Informed Consent Process**

Simply giving a consent form to a subject does not constitute informed consent.

a. Prepare **and attach** a Consent Form for IRB Review.
You may download the Consent Form Template from the IRB web site at <http://www.stthomas.edu/irb>. NOTE: It is important that you adapt this template to the needs and context of your research.

b. "I am conducting research to find out what kind of experiences students have who are in an online class for the first time. You have been selected to participate in the study because you are in an online class for the first time and have volunteered to participate."

Participation in this study will be done on a purely voluntary basis. To ensure confidentiality, no actual names of students, faculty, or staff will be used on transcripts or in the final document.

c. "Research is being conducted to understand the experiences of students who are enrolled in an online class for the first time. This research is being used to write a doctoral dissertation, and will also be used by the college to improve their delivery of online courses. Participation in this research is purely voluntary. If you choose to volunteer your name will be forwarded to the researcher who will then email you an online survey to complete. Students will be selected to participate based on the survey answers. If you are chosen for the study, you will be interviewed by the researcher either via telephone or face-to-face after you have completed the online course and your final grade has been posted. To ensure confidentiality, no actual names will be used on the transcripts of the study, or in the final document itself, and all identifying data will be kept in a locked filing cabinet. Do you have any questions about the study or the interview process?"

d. Informal consent via email will be obtained from the Director of Institution Research prior to forwarding student contact information to the researcher. Written formal consent will be obtained by the researcher prior to interviewing the participant. Additionally, a statement of informed consent will be included in the introduction of the online survey indicating that completion and submission of the survey implies consent to participate in the study.

e. Will the investigator(s) personally secure informed consent for all subjects?

[X] **Yes** [ ] **No - Identify below** the individuals who will obtain consent:

14. **Determination of Full Board Review Category** (Mark all that apply):

[ ] Research involving more than minimal risk to the subject requires Full IRB review using risk/benefit analysis.

[ ] Research using children or vulnerable populations requires full IRB review. Children are defined in federal regulations as "persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law of the jurisdiction in which the research will be conducted." 45 CFR 46.402(a).

15. **Special Concerns for Research in School Settings**

a. *If subjects are school children, and class time is used to collect data, describe in detail the activity planned for non-participants*.

b. *Who will supervise non-participants? Include this information in the consent form*.

SIGNATURE PAGE

Note: Inked signatures are required on the original application, to be submitted with the appropriate number of copies.

This research, once approved, is subject to continuing review and approval by the IRB. The principal investigator will maintain records of this research according to IRB guidelines. If these conditions are not met, approval of this research could be suspended.

The signatures below certify that:

The signatory agrees that he or she is aware of the human subjects policies of the University of St. Thomas and will safeguard the rights, dignity, and privacy of all human subjects.

The information provided in this application form is correct.

- The principal investigator will seek and obtain prior written approval from the IRB for any substantive modification in the proposal, including but not limited to changes in cooperating investigators/agencies as well as changes in procedures.
- Unexpected or otherwise significant adverse events in the course of this study which may affect the risks and benefits to participation will be reported in writing to the IRB and to the subjects.

- The research will not be initiated and subject cannot be recruited until final written approval is granted.

Signature of Principal Investigator _____Date _____

Signature of Research Advisor _____Date _____

***Student Research**:* As Research Advisor to the student investigator, I assume responsibility for insuring that the student complies with University and Federal regulations regarding the use of human subjects in research.

Signature of Department Chair, or Designee _____ Date _____

Faculty/Staff Research: As Department Chair, or Designee, I acknowledge that this research is in keeping with the standards set by our department and assure that the principal investigator has met all departmental requirements for review and approval of this research.

APPENDIX B

August 15, 2008

To Whom It May Concern:

Christine Schafer has requested permission from [redacted] to do the below outlined research in support of her doctoral dissertation. A final copy of the dissertation will be provided to [redacted] to provide institutional insight in order to improve retention and successful completion of students enrolled in online classes.

Goal of the Research:

To understand the experiences of academically disadvantaged students enrolled for the first time in an online course at a rural community and technical college.

Methods:

The college's Director of Institutional Research will email students identified as first time online learners, who are 18 years of age or older, a letter of invitation outlining the purpose and structure of the study. Online courses included in this study will be biology, computer science, and English. The approximate size of the final sample group will be 20 students (an estimate based on a voluntary response rate). The study will be conducted on a purely voluntary basis. Students will respond with their willingness to participate directly to the college's Director of Institutional Research.

The names and contact information of those indicating a willingness to participate in the study will be forwarded to the researcher. Each student volunteer will be emailed a survey to complete no later than the first week of the semester. The survey will include the following question designed to assist students in self-identification of their status as potentially academically disadvantaged students:

> I consider myself an at-risk learner, defined here as someone who may experience difficulty in learning due to my previous experience or performance in completing academic work or taking standardized achievement tests: _____ Yes _____ No
>
> If yes, I consider myself as an at-risk learner because of (Please check all that apply):
> _____ my confidence level _____ my Accuplacer or other placement test scores
> _____ my grade point average _____ my writing skills
> _____ my reading skills _____ my *documented* disability
> _____ other

Because an academically disadvantaged student as defined in this study is one with a low grade point average or low placement test scores, in order to increase the study's validity, only those students indicating on their completed survey that they feel they are at-risk due to either their grade point average or placement test scores will be used in the final sample group. Those students indicating that they have a documented disability will be eliminated from the study.

Both those chosen for the sample and those eliminated will be emailed a formal letter thanking them for their willingness to participate and indicating whether they will be contacted for a follow-up interview upon completion or withdrawal from the course. The researcher will conduct either a face-to-face or telephone interview, based on the study participant's preference and/or availability, after the student either withdraws from or completes the course. The semi-structured interview will focus on how the student viewed their first time experience in an online class, and will seek to distinguish what makes their experiences successful or unsuccessful. Those completing the course will not be interviewed until after final grades are posted.

Serendipitous informal data will also be gathered through notation of observations and informal conversations with faculty and staff who deal with online students on a regular basis.

Protections:

To ensure confidentiality, no actual names of students, faculty, or staff will be used on transcripts or in the final document. Additionally, all identifying data related to the study will be kept in a locking file cabinet.

[redacted] grants Christine Schafer permission to conduct the research outlined above in support of her doctoral dissertation.

[redacted]

APPENDIX C

Dear Online Student:

Chris Schafer, one of the [redacted] administrators is conducting a research study of first time online students for her doctoral dissertation through the University of St. Thomas. The purpose of the study is to understand the experiences of students enrolled for the first time in an online course at the college. I am inviting you to be a part of this study.

If you would like to volunteer to participate in this study, please reply to this email indicating your willingness to participate.

Only the names of those who chose to volunteer to participate in this study will be forwarded to Chris. She will then email you a survey to complete and return to her. From the surveys that are returned, Chris will select a sample group of students to follow-up with at the end of the course with a face-to-face or telephone interview, at the student's convenience and preference. Each student who completes and returns the survey will be contacted by Chris via email to let them know if they have been chosen for a follow-up interview at the end of the course. All interviews will be done upon completion or withdrawal from the course and only after final grades have been posted.

To further insure confidentiality for those volunteering to participate in Chris' study, no actual names will be used in the dissertation document. Additionally, all identifying data related to the study will be kept in a locking file cabinet.

Your willingness to participate in this study will provide [redacted] greater insight into student experience in online classes, and will help them to improve that experience. Thank you for considering this important request.

If you have any questions or concerns, please don't hesitate contacting me via email at [redacted]. I look forward to hearing from you.

Sincerely,

[redacted]

APPENDIX D

Online Student Survey

This survey is being conducted to help evaluate the experiences of first time online students at the college. Your willingness to complete this survey will provide the college with greater insight into student experience in online classes, and will help them to improve that experience. All information provided in this survey will be kept confidential. Your consent to participate in this study is implied when you complete and submit the survey.

Student Name: _____

Please select only one response for each item.

1. Course I am enrolled in:

   Subject Area : Biology

   _____ Principles of Biology

   _____ Human Anatomy

   _____ Human Physiology

   _____ Genetics

   _____ Medical Terminology

   Subect Area : Computer Science

   _____ Microcomputer Keyboarding

   _____ Introduction to Microcomputers

   _____ Visual Basic Programming

   _____ Java Programming II

Subject Area : English

_____ Composition I

_____ Composition II

_____ Research Papers

_____ Survey of British Literature II

_____ Composition: Technical Writing

2. Online course number:

_____ CSCI 1100 _____ BIOL 2245

_____ CSCI 1102 _____ ENG 1101

_____ CSCI 2250 _____ ENG 1102

_____ BIOL 1110 _____ ENG 1103

_____ BIOL 2201 _____ ENG 2276

_____ BIOL 2202 _____ Don't know course number

3. I enrolled in this online course because:

_____ It was required and only offered online

_____ It was required and I preferred to take it online

_____ It was required and the online section was the only one that fit my schedule

_____ It was an elective that I needed and only offered online

_____ It was an elective that I needed and I preferred to take it online

_____ It was an elective that I needed and the online section was the only one that fit my schedule

_____ I did not need this course but chose to take it online

4. My college advisor recommended I enroll in this course.

_____ Yes _____ No

5. I feel comfortable using a computer.

   _____ Strongly Disagree

   _____ Disagree

   _____ Neutral

   _____ Agree

   _____ Strongly Agree

6. This is the first time I've taken an online course.

   _____ Yes _____ No

7. Year of College

   _____ 1st

   _____ 2nd

   _____ over 2

8. Age

   _____ 18 or under _____ 19 to 24

   _____ 25 to 34 _____ 35 to 44

   _____ 45 to 54 _____ 55 or over

9. English is my first language.

   _____ Yes _____ No

10. Gender

    _____ Female _____ Male

11. I consider myself an at-risk learner, defined here as someone who may experience difficulty in learning due to my previous experience or performance in completing academic work or taking standardized achievement tests:

    _____ Yes _____ No

If yes, I consider myself as an at-risk learner because of (Please check all that apply):

_____ my confidence level
_____ my Accuplacer or other placement test scores
_____ my grade point average
_____ my writing skills
_____ my reading skills
_____ my *documented* disability
_____ other

Thank you for taking the time to fill out this survey. Please complete and return it to me no later than January 16, 2009.

APPENDIX E

CONSENT FORM
UNIVERSITY OF ST. THOMAS

Experiences of First Time Online Learners

[B09-020-2]

I am conducting a study about the experiences of college students who are enrolled for the first time in an online course. I invite you to participate in this research. You were selected as a possible participant because you are a college student enrolled in your first online course. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Chris Schafer, a doctoral student at the University of St. Thomas in Minneapolis, Minnesota. This study will result in a doctoral dissertation.

Background Information:

The purpose of the study is to understand the experiences of students enrolled for the first time in an online course at a small community and technical college. This study seeks to provide your college and others greater insight into student experience in online classes, and help them to improve that experience.

Procedures:

I will be asking you a series of interview questions that will help me to better understand your experiences in your online class. I am tape recording this interview so that I may transcribe it as exactly as possible.

Risks and Benefits of Being in the Study:

There are no inherent risks in this study.

There are no inherent benefits to you in this study.

Confidentiality:

Any physical data such as printed interview transcripts, signed consent forms, printed surveys, and notes related to the research will be secured in a locked filing cabinet in my office. Taped transcripts will be transcribed by myself when I am alone in the privacy of my office, and will be erased once transcribed. All email correspondence, electronic surveys, and electronic documents related to the research will be secured on my password protected personal computer. I will be the only person with access to the data. All data will be destroyed once my dissertation is successfully defended, approximately October 2010.

Voluntary Nature of the Study:

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with [redacted] or the University of St. Thomas. If you decide to participate, you are free to withdraw at any time without penalty. Should you decide to withdraw data collected about you will not be used in the study.

Contacts and Questions

My name is Chris Schafer. You may ask any questions you have now. If you have questions later, you may contact me at 507/825-6817 or via email at chris.schafer@mnwest.edu. You may also contact my advisor, Dr. Sarah Noonan @ sjnoonan@sttomas.edu or the University of St. Thomas Institutional Review Board at 651-962-5341 with any questions or concerns.

You will be given a copy of this form to keep for your records.

Statement of Consent:

I have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I consent to be audio-taped.

_____ _____

Signature of Study Participant **Date**

_____

Printed Name of Study Participant

_____ _____

Signature of Researcher **Date**

APPENDIX F

Dear Online Student,

Thank-you for your willingness to participate in my study of first time online students.
I will be contacting you after you complete the course to arrange a time for an interview with you, if you are willing, about your online learning experience. If you have any questions that I can answer at any time during this semester please don't hesitate to call, 507/825-6817, or email me, chris.schafer@mnwest.edu.

Sincerely,

Chris Schafer
University of St. Thomas Doctoral Student

APPENDIX G

Dear Online Student,

Thank-you for your willingness to participate in my study of first time online students.
Your survey information will be very helpful to me as I complete my research. I wish you well in your online learning experience. If you have any questions that I can answer at any time during this semester please don't hesitate to call, 507/825-6817, or email me, chris.schafer@mnwest.edu.

Sincerely,

Chris Schafer
University of St. Thomas Doctoral Student

APPENDIX H

UNIVERSITY OF ST. THOMAS

INSTITUTIONAL REVIEW BOARD

APPLICATION TO AMEND PREVIOUSLY APPROVED RESEARCH

IRB USE ONLY
IRB # _____
DATE RECEIVED: _____

1. *Primary Investigator*: Christine L. Schafer

2. *IRB number of Research*: B09-020-2

3. *Title of Research:* Online Learning and the Academically Disadvantaged Student

4. *Mark the appropriate category:*

[ ] **F**aculty or Staff Research (1) [ ] **U**ndergraduate Student Research (3)

[X]**G**raduate Student Research (2) [ ] **C**lassroom Protocol (4)

[ ] **S**tudent/Faculty Collaboration (6)

[ ] **O**ther (specify): _____

5. *Date of last IRB approval*: 4/14/09 5b. *Date of expected Completion:* 12/30/11

6. *Level of review:* [X] Exempt [ ] Expedited [ ] Full Board

7. *Address*: 322 7th St. NW
Waverly, IA
50677

8. *Phone*: 319-504-9497

9. *Email*: clschafer@stthomas.edu

10. Please explain in one or two brief paragraphs the change(s) you wish to make to your research protocol and your reason(s) for making the change(s).

My original proposal focused on the experiences of academically disadvantaged community college students in an online learning environment for the first time. I spent one year contacting over 300 students who were identified as taking their first online class, but had a very poor response rate and was only able to obtain interviews with 6 academically disadvantaged students and three non-academically disadvantaged students. I was not able to come to any conclusions from that small amount of data; however, what I was hearing from those students caused me to become more interested in the experiences of the instructors who are teaching academically disadvantaged students. After doing a preliminary pilot study with a few online instructors, I would like to augment my original study by interviewing online instructors to get their perspective on the effectiveness of the online learning environment in a college where close to 55% of the students are considered academically disadvantaged. How do instructors identify struggling students? What strategies do they use to help foster success?

What characteristics do they recognize as being advantageous in an online learner? How successful do instructors believe at-risk students are in online classes?

11. Please list the section(s) of your protocol that will be affected by the change(s).

- 7d
- 8
- 9
- 9d
- 13b
- 13c
- 13d

12. Please list the section(s) of your consent form that will be affected by the change(s).

- Introduction – change to reflect selection of instructor participants

13. Please list any other supporting documents (e.g. flyers, recruitment letters, letters of cooperation from organizations) that will be revised, and describe the revision(s) to these documents in one or two sentences each.

14. Please list any new supporting documents that will be needed.

Recruitment email – these are past colleagues of mine, and a simple email recruitment letter will be emailed to them explaining the study and inviting them to participate.

15. Please attach each of the following:

[X] Updated versions of any sections of your protocol affected by the revision, with the changes highlighted or in a different font color.

[X] Your revised consent form, if applicable, with the changes highlighted or in a different font color.

[ ] Any revised supporting documents, if applicable, with the changes highlighted or in a different font color.

[X] Any new supporting documents, if applicable.

Signature: Christine L. Schafer Date: 6/30/11

Christine L. Schafer
Revised sections of protocol
6/30/11
7d. **Special Characteristics:**
[x] Normal Adult Volunteers **[ ] P**atient Controls
[X] Students **[ ] I**npatients
[ ] Outpatients

8. (Prior to last paragraph, insert)
Faculty teaching online courses will be identified by the researcher from the course list publicly published on the college's website. The researcher will contact these instructors via an email briefly outlining the research and inviting them to participate.
Serendipitous informal data will also be gathered through notation of observations and informal conversations with faculty and staff who deal with online students on a regular basis.
Tasks: Student participants will be asked to complete a short survey via email. A selected group from those completing the survey will be further asked to participate in a face-to-face or telephone interview. All interviews will be audio-taped.
Target Group: This group has been targeted because of the growing number of online courses being offered in higher education, and because of the large amount of academically disadvantaged students enrolled at two year colleges.
9.
Potential student subjects will be identified by the college registrar and forwarded directly to the college's Director of Institutional Research.
(addition at end) In addition, faculty teaching online courses will be identified by the researcher from the course list publicly published on the college's website. The researcher will contact these instructors via an email briefly outlining the research and inviting them to participate.
9d.
What is the nature of the relationship between the researcher and any cooperating agency or organization? Past employee
13b.
I am conducting research to find out what kind of experiences students have who are in an online class for the first time, as well as the experiences and insight of online instructors. You have been selected to participate in the study because you are an online instructor and have volunteered to participate.
Participation in this study will be done on a purely voluntary basis. To ensure confidentiality, no actual names of students, faculty, or staff will be used on transcripts or in the final document.

13c.
Research is being conducted to understand the experiences of students who are enrolled in an online class for the first time, as well as the experiences and insight of online instructors. This research is being used to write a doctoral dissertation, and will also be used by the college to improve their delivery of online courses. Participation in this research is purely voluntary. ~~If you choose to volunteer your name will be forwarded to the researcher who will then email you an online survey to complete~~. ~~Students will be selected to Online Learning 43 participate based on the survey answers. If you are chosen for the study, you will be interviewed by the researcher either via telephone or face-to-face after you have completed the online course and your final grade has been posted~~. To ensure confidentiality, no actual names will be used on the

transcripts of the study, or in the final document itself, and all identifying data will be kept in a locked filing cabinet. Do you have any questions about the study or the interview process?

13d. Informal consent via email will be obtained by the researcher prior to the interview. Formal written consent will be obtained by the researcher prior to interviewing the participant.

APPENDIX I

Faculty Recruitment email

Dear xxxx,

I am conducting a research study of online coursework in higher education for my doctoral dissertation. The purpose of the study is to understand the experiences of students enrolled for the first time in an online course at the college. After interviewing a number of students, it has become apparent that I also need to interview online instructors to have a more complete picture of the online learning environment. I am inviting you to be a part of this study.

If you would like to volunteer to take part in this research, please respond to this email indicating your willingness to participate.

If you choose to participate, I will email you to arrange a time when you are available to do a telephone interview. The interview will last approximately ½ hour.

To insure confidentiality for those volunteering to participate in my study, no actual names will be used in the dissertation document. Additionally, all identifying data related to the study will be kept in a locking file cabinet.

Your willingness to participate in this study will provide greater insight into student experience in online classes, and will help to improve that experience. Thank you for considering this important request.

If you have any questions or concerns, please don't hesitate contacting me via email at clschafer@stthomas.edu

I look forward to hearing from you.

Sincerely,

Chris Schafer
Doctoral Candidate
University of St. Thomas
319/504-9497 (cell)

APPENDIX J

CONSENT FORM
UNIVERSITY OF ST. THOMAS
Experiences of Online Learners

[B09-020-2]

I am conducting a study about the experiences of college students who are enrolled for the first time in an online course, and also faculty who teach in an online environment. I invite you to participate in this research. You were selected as a possible participant because you are an online instructor. Please read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Chris Schafer, a doctoral student at the University of St. Thomas in Minneapolis, Minnesota. This study will result in a doctoral dissertation.

Background Information:

The purpose of the study is to understand the experiences of students enrolled for the first time in an online course, and the experiences of online instructors at a small community and technical college. This study seeks to provide your college and others greater insight into student experience in online classes, and help them to improve that experience.

Procedures:

I will be asking you a series of interview questions that will help me to better understand your experiences in your online class. I am tape recording this interview so that I may transcribe it as exactly as possible.

Risks and Benefits of Being in the Study:

There are no inherent risks in this study.

There are no inherent benefits to you in this study.

Confidentiality:

Any physical data such as printed interviews, transcripts, signed consent forms, printed surveys, and notes related to this research will be secured in a locked filing cabinet in my office. Taped transcripts will be transcribed by myself when I am alone in the privacy of my office, and will be erased once transcribed. All email correspondence, electronic surveys, and electronic documents related to the research will be secured on my password protected personal computer. I will be the only person with access to the data. All data will be destroyed once my dissertation is successfully defended, approximately December 2011.

Voluntary Nature of the Study:

Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with [redacted] or the University of St. Thomas. If you decide to participate, you are free to withdraw at any time without penalty. Should you decide to withdraw data collected about you will not be used in the study.

Contacts and Questions

My name is Chris Schafer. You may ask any questions you have now. If you have questions later, you may contact me at 319-352-8462 or via email at Christine.schafer@wartburg.edu. You may also contact my advisor, Dr. Sarah Noonan @ sjnoonan@sttomas.edu or the University of St. Thomas Institutional Review Board at 651-962-5341 with any questions or concerns.

You will be given a copy of this form to keep for your records.

Statement of Consent:

I have read the above information. My questions have been answered to my satisfaction. I consent to participate in the study. I consent to be audio-taped.

_____ _____

Signature of Study Participant Date

_____

Printed Name of Study Participant

_____ _____

APPENDIX K

Student Interview Questions

1. Can you tell me your name and a little bit about yourself?
2. What made you choose to come to [redacted]?
3. What program of study are you in?
4. What made you choose that program of study?
5. Can you tell me what online class you were in this past semester?
6. What made you choose that online class?
    a. Was face-to-face an option?
7. Can you tell me about your experiences in that class?
    a. Positives?
    b. Negatives?
8. Did you meet with an advisor prior to registering for your online class?
    a. Did your advisor discuss online learning with you?
    b. Can you tell me what the advisor said about online learning?
9. Did you attend a session on your campus that introduced you to online tools like, Desire 2 Learn, the college portal, email, etc.
    a. Can you tell me about that session?
    b. What was covered?
    c. Did you find it helpful? Why or why not?
10. Did you complete the introduction to online learning course that is in Desire 2 Learn?
    a. Did you find it helpful? Why or why not?

11. Do you have access to a home computer with an Internet connection? Can you tell me how you think that access, or lack there-of affected your online class experience?
12. What was the final outcome of your online class?
    a. Grade?
        i. Why do you think you received that grade?
    b. Withdraw?
        i. When?
        ii. Why did you decide to withdraw?
        iii. Did you just withdraw from this course or did you withdraw from others as well? Which ones?
13. How do you feel about taking another online course in the future?

APPENDIX L

Instructor/Tutor Interview Questions

1. Can you tell me your name and a little bit about yourself?
2. What made you choose to come to [redacted]? How long have you been here?
3. How did you become involved in online learning?
4. What kind of training/support did you receive prior to teaching an online course?
5. How can you tell a student is struggling in your online course? What do you do to support him or her?
6. How is online teaching different than face-to-face teaching?
7. What do you see as some of the advantages/disadvantages for online learning?
8. How do you communicate with students in an online course?
9. Are there some courses you feel are inappropriate for online learning? Which ones?
10. How do you build relationships between yourself and the students or between students themselves?